The New York
Academy of Medicine

The
Dr. Walter B. James
Memorial Fund

Established 1940

Digitized by the Internet Archive
in 2016

https://archive.org/details/mississippidocto1519unse

2-K

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, JUNE, 1937 NO. 1

THE N. ACADEMY OF MEDICINE
OCT 20 1937
LIBRARY

15
1937-38

DR. JOE GREEN
LAUREL, MISS.
President-elect of the Mississippi State Medical Association. A courtly gentleman, progressive in medicine and in citizenship.

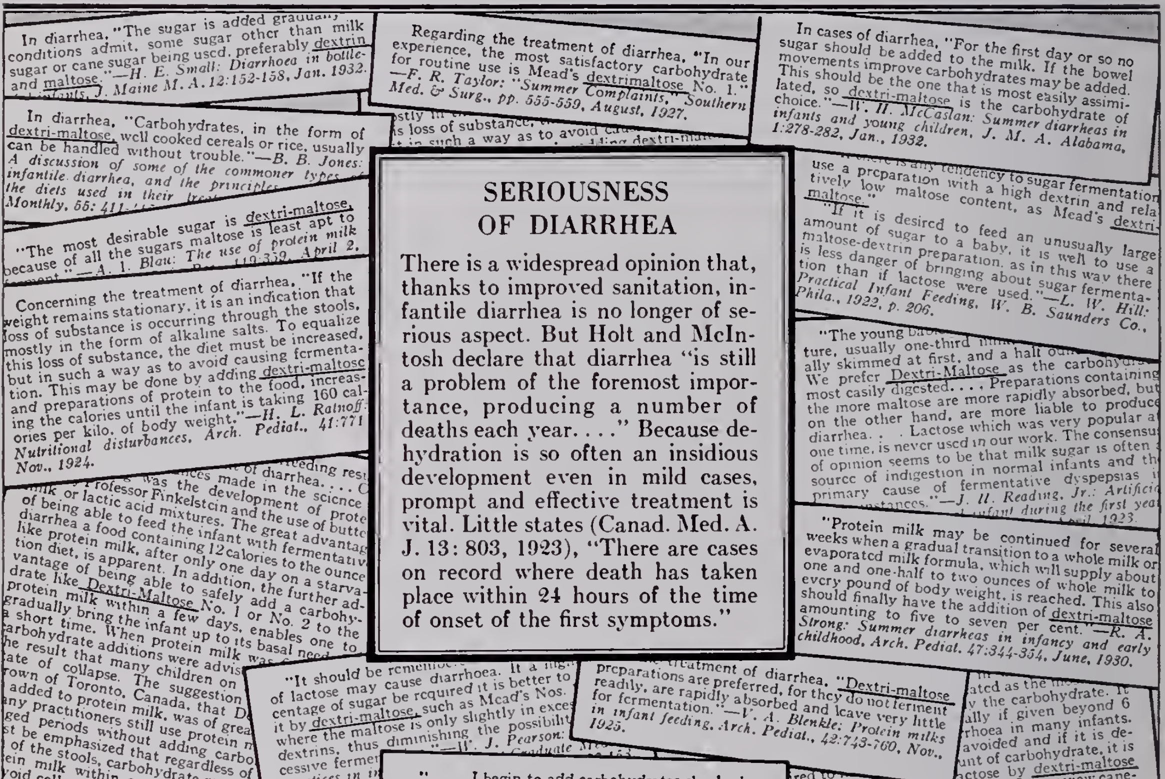
EXCH. BULL

DIARRHEA

"the commonest ailment of infants in the summer months"

(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

One of the outstanding features of DEXTRI-MALTOSE is that it is almost unanimously preferred as the carbohydrate in the management of infantile diarrhea.



In diarrhea, "The sugar is added graduaily
conditions admit, some sugar other than milk
sugar or cane sugar being used, preferably dextrin
and maltose."—*H. E. Small: Diarrhoea in bottle-*
J. Maine M. A. 12:152-158, Jan. 1932.

In diarrhea, "Carbohydrates, in the form of
dextri-maltose, well cooked cereals or rice, usually
can be handled without trouble."—*B. B. Jones:*
A discussion of some of the commoner types
infantile diarrhea, and the principles
the diets used in their
Monthly, 55: 411-

"The most desirable sugar is dextri-maltose,
because of all the sugars maltose is least apt to
—*A. I. Blau: The use of protein milk*
April 2,

Concerning the treatment of diarrhea, "If the
weight remains stationary, it is an indication that
loss of substance is occurring through the stools,
mostly in the form of alkaline salts. To equalize
this loss of substance, the diet must be increased,
but in such a way as to avoid causing fermenta-
tion. This may be done by adding dextri-maltose
and preparations of protein to the food, increas-
ing the calories until the infant is taking 160 cal-
ories per kilo. of body weight."—*H. L. Ratnoff:*
Nutritional disturbances, Arch. Pediat., 41:771
Nov., 1924.

of diarrhea. . . . C
was the development in the science
Professor Finkelstein and the use of prote
milk or lactic acid mixtures. The great advantag
of being able to feed the infant with fermentativ
diarrhea a food containing 12 calories to the ounce
like protein milk, after only one day on a starva-
tion diet, is apparent. In addition, the further ad-
vantage of being able to safely add a carbohy-
drate like Dextri-Maltose No. 1 or No. 2 to the
protein milk within a few days, enables one to
gradually bring the infant up to its basal need
a short time. When protein milk was
carbohydrate additions were advis
the result that many children on
state of collapse. The suggestion
town of Toronto, Canada, that D
added to protein milk, was of grea
any practitioners still use protein m
ged periods without adding carbo
st be emphasized that regardless of
of the stools, carbohydrate must be
ein milk within a reasonable time
void collapse."—*G. J. Feldstein:*
fants and children, Arch. Pe
1933.

Regarding the treatment of diarrhea, "In our
experience, the most satisfactory carbohydrate
for routine use is Mead's dextrimaltose No. 1."
—*F. R. Taylor: "Summer Complaints," Southern*
Med. & Surg., pp. 555-559, August, 1927.

In cases of diarrhea, "For the first day or so no
sugar should be added to the milk. If the bowel
movements improve carbohydrates may be added.
This should be the one that is most easily assimi-
lated, so dextri-maltose is the carbohydrate of
choice."—*W. H. McCaslan: Summer diarrheas in*
infants and young children, J. M. A. Alabama,
1:278-282, Jan., 1932.

tendency to sugar fermentation
use a preparation with a high dextrin and rela-
tively low maltose content, as Mead's dextri-
maltose."

"If it is desired to feed an unusually large
amount of sugar to a baby, it is well to use a
maltose-dextrin preparation, as in this way there
is less danger of bringing about sugar fermenta-
tion than if lactose were used."—*L. W. Hill:*
Practical Infant Feeding, W. B. Saunders Co.,
Phila., 1922, p. 206.

"The young
ture, usually one-third
ally skimmed at first, and a half
We prefer Dextri-Maltose as the carbohydr
most easily digested. . . . Preparations containing
the more maltose are more rapidly absorbed, but
on the other hand, are more liable to produce
diarrhea. . . . Lactose which was very popular a
one time, is never used in our work. The consensus
of opinion seems to be that milk sugar is often
source of indigestion in normal infants and th
primary cause of fermentative dyspepsias i
instances."—*J. H. Reading, Jr.: Artifici*
infant during the first yea
1923.

"Protein milk may be continued for several
weeks when a gradual transition to a whole milk or
evaporated milk formula, which will supply about
one and one-half to two ounces of whole milk to
every pound of body weight, is reached. This also
should finally have the addition of dextri-maltose
amounting to five to seven per cent."—*R. A.*
Strong: Summer diarrheas in infancy and early
childhood, Arch. Pediat. 47:344-354, June, 1930.

"It should be remem
of lactose may cause diarrhoea. It a hig
centage of sugar be required it is better to
it by dextri-maltose, such as Mead's Nos.
where the maltose is only slightly in exces
dextrins, thus diminishing the possibilit
cessive fermen —*W. J. Pearson:*
practices in in Graduate
6:38, 1930;

treatment of diarrhea, "Dextri-maltose
preparations are preferred, for they do not ferment
readily, are rapidly absorbed and leave very little
for fermentation."—*V. A. Blenkle: Protein milks*
in infant feeding, Arch. Pediat., 42:743-760, Nov.,
1925.

ated as the
y the carbohydrate. It
ally if given beyond 6
rhoea in many infants.
avoided and if it is de-
unt of carbohydrate, it is
red to actose by dextri-maltose
est to partly and 2). In our view cane-
mixtures (Mead's Nos. 1 and 2). In our view cane-
sugar is less suitable than lactose, and if for any
reason there is objection to the use of lactose,
is obtained by the addition of carbohydrates, while
fat and casein are reduced. For this purpose dex-
trimaltose and flour are better than the ordinary
sugars, since they are more slowly absorbed and
have greater efficacy in their powers of controlling
the flora in the large intestine."—*W. J. Pearson*
W. G. Wyllie: Recent Advances in Diseases
Blakiston's Son & Co., Phila., 1930.

In cases of malnutrition and indigestion,
"The appetite improves rapidly, and the stools
soon become normal in appearance, if the sugars
are intelligently prescribed. By this I refer to
proper proportions of dextrin and maltose. Wh
there is a tendency to looseness, I have used t
preparation known as 'dextri-maltose,' for
carbohydrates; —*M. Ladd: Furt*
homogenized olive oil mixtur
July, 1916.

" . . . I begin to add carbohydrates slowly, by
replacing ¼ ounce Casec every two days with
¼ ounce of Dextri-Maltose, preferably Dextri-
Maltose Number one As a rule, this is tolerated.
When one ounce of Dextri-Maltose is used, the
Casec, of course, should be discontinued."—*J. W.*
Reed: The etiology and

"When sugar causes diarrhoea one can change
the form of it. Mead's Dextrimaltose in small
doses is more quickly absorbed and so superior to
castor [cane] sugar. Lactose is expensive and seems
not to be better than castor sugar."—*H. B. Glad-*
stone: Infant Feeding and

"After the preliminary short period of starva-
tion, protein milk should be used. . . . When the
diarrhoea has been sufficiently checked, dextri-
maltose may be added and gradually increased
until from 4 to 6 tablespoons are being used."
—*W. L. Denney: Acute nutritional disturbances of*
infancy, Univ. West. Ontario M. J. 2:132-137,
April, 1932.

"Milk-sugar, which has been so extensively
used in the past, should never be used where there
is any digestive disturbance. It is not as easily
digested as either cane-sugar (granulated sugar)
or dextri-maltose. The latter is the best of all
sugars to use, especially if there is any tendency
to looseness of the bowels."—*A. Brown: The Nor-*
mal Child: Its Care and Feeding, F. D. Goodchild
Company, Toronto, 1923, p. 120.

For cases of fermentative diarrhea, ". . . the
ideal plan of treatment would be to give a food
which is low in sugar (the food which that group
of organisms thrive on) and high in protein. Cal-
cium caseinate milk accomplishes this purpose.
In our series of cases, we found it was necessary
to use the casein calcium for from 5-8 days; we
then stopped it and added dextri-maltose to the
formula."—*A. G. DeSanctis and L. V. Paider:*
The value of calcium caseinate milk in fermen
diarrhea, Arch. Pediat.

SERIOUSNESS OF DIARRHEA

There is a widespread opinion that, thanks to improved sanitation, infantile diarrhea is no longer of serious aspect. But Holt and McIntosh declare that diarrhea "is still a problem of the foremost importance, producing a number of deaths each year. . . ." Because dehydration is so often an insidious development even in mild cases, prompt and effective treatment is vital. Little states (Canad. Med. A. J. 13: 803, 1923), "There are cases on record where death has taken place within 24 hours of the time of onset of the first symptoms."

Just as DEXTRI-MALTOSE is a *carbohydrate* modifier of choice, so is CASEC (calcium caseinate) an accepted *protein* modifier. Casec is of special value during the summer months (1) for colic and loose green stools in breast-fed infants; (2) in fermentative diarrhea in bottle-fed infants, (3) as a prophylactic against diarrhea in infections.

When requesting samples of Dextri-Maltose, please enclose professional card to cooperate in preventing their reaching unauthorized persons.

MEAD JOHNSON & CO., EVANSVILLE, INDIANA, U.S.A.

"A supply in the bag; a supply in the office *–always!*"

No physician knows, when he starts his day, what critical situations will confront him. Because this product is essentially an emergency remedy, many physicians make a practice of keeping at hand at all times a supply of Adrenalin Chloride Solution 1:1000 (the Parke-Davis brand of Solution of Epinephrine Hydrochloride U.S.P.).

Medical men and women throughout the world have been relying on the original Parke-Davis product every hour of the day and night for thirty-five years; and the resources and personnel of the Parke, Davis & Co. laboratories of today are pledged to maintain its unvarying dependability. A request will bring the booklet "Adrenalin in Medicine" by return mail.

PARKE DAVIS
& COMPANY

Home Offices and Laboratories—Detroit, Michigan.

ATLANTA BALTIMORE BOSTON BUFFALO CHICAGO CINCINNATI DALLAS INDIANAPOLIS
KANSAS CITY MINNEAPOLIS NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH
ST. LOUIS SAN FRANCISCO SEATTLE

James Fd.
Per.

Short-Wave Diathermy Unit

STANDARD MODEL

500 WATTS OUTPUT

18 METERS

Standard accessory equipment furnished with the Hogan Brevatherm "Standard Model" includes:

1 pair 5" x 7" conderser plate electrodes
1 pair 7" x 9" condenser plate electrodes
2 pair cuff electrodes (medium and small)
1 felt "build-up" pad for each electrode above
1 pair rubber electrode bandages with fasteners
1 line cord and plug

Treatment cords with jack plugs are attached to each electrode.

THE GWINNER-MERCERE CO.
191 MADISON AVE.
MEMPHIS, TENN.

JAN 18 1951
OF MEDICINE
277265

For Sufferers from

Asthma — Hay Fever

SINUS and RELATED DISORDERS

physicians recommend

ALLERGIA PILLOWS

Non Allergic - Dust Free - Non Irritant

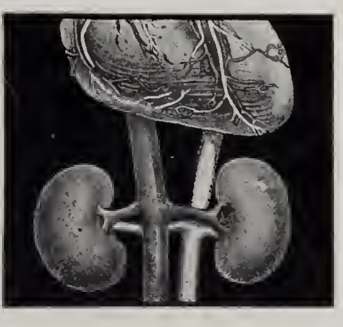
Write us for Special Circular and Prices.

McKesson-Doster-Northington
Surgical Instruments and Hospital Supplies
1706-12 First Avenue, Birmingham, Ala.

TCS

Theobromine, gr. 3.40 Calcium, gr. 0.12 Salicylates, gr. 3.48
Phenobarbital, gr. 0.25

Diuretic, coronary vasodilator, myocardial and renal stimulant and neuro-circulatory sedative.



Indications: Hypertension, angina pectoris, coronary thrombosis, myocardial insufficiency, and edema.

Directions
One to three tablets three or four times daily.

Dispensed in bottles of 50 and 250 tablets

WM. P. POYTHRESS & COMPANY, *Inc.*
MANUFACTURING CHEMISTS
RICHMOND VIRGINIA
POYTHRESS 1856

JEFFERSON STANDARD LIFE INSURANCE CO.

The largest regular ordinary Life Insurance Company South of the Mason-Dixon Line.

Policy contracts especially adapted to members of the medical profession.

Trained life underwriters to advise and assist in securing your needs.

J. L. DENSON, District Manager
523-25 Lampton Building
Jackson, Miss.

JEFFERSON STANDARD LIFE INSURANCE CO.
JULIAN PRICE, President
Greensboro, N. C.

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate

Here's A **FLEXIBLE** Short Wave

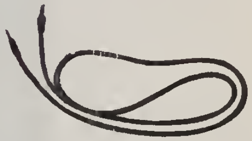
L-F

STANDARD MODEL

Short Wave Generator

TWO METHODS OF APPLICATION!

INDUCTANCE CABLE



—as well as—
CONDENSER-PADS

LIEBEL-FLARSHEIM
Standard Model
Short Wave Generator
——Accepted——
American Medical Assn.
Council on Physio-Therapy

A most acceptable unit for average use. Generally recognized as the best dollar-for-dollar Short Wave value available. Over a thousand now in use—all rendering eminently satisfactory service.

AMPLE POWER is generated for all types of pad and cable therapeutic treatment, including fever therapy. Current for minor office electro-surger is also available.

SIMPLE TO OPERATE—having only a single dial control for each modality—instantly and smoothly regulated — no jumps or steps. Shock proof—an all-purpose unit. Product of electro-medical apparatus manufacturers in business over twenty years.

This choice of applicators enables you to use the method best suited to the part being treated. Condenser-Pads are recommended for use on regular surfaces, and Inductance Cable for irregular surfaces. Either modality is quickly and easily applied.

MODERATELY PRICED—TERMS—Easy payments to suit your convenience will make the installation of this unit virtually a self-liquidating investment.

It will pay you to investigate the many advantages of this unit. It is the only Short Wave generator on the market affording the use of two methods of application, namely, the Inductance Cable and Condenser-Pad applicators—which have stood the test of prolonged use—nearly two years! Literature gives complete details.

THE DICK X-RAY COMPANY
MEDICAL ARTS BUILDING MEMPHIS, TENN.

Tear off Coupon and Mail Today—No Obligation

THE DICK X-RAY CO.
Medical Arts Bldg.
Memphis, Tenn.

Please let me have complete details on the L-F Standard Model Short Wave Generator—without any cost to me.

DR. ....

ADDRESS ....

HOYE'S SANITARIUM

"IN THE MOUNTAINS OF MERIDIAN"
Meridian. Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital.

Robert E. Lee Hotel

"The High Spot of Southern Hospitality"

Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager
STEWART GAMMILL, Jr., Asst. Mgr.

PANDORA THE PHYSICIAN'S BAG THAT IS ALWAYS ORGANIZED

Genuine smooth topgrain cowhide, toughest and finest material possible. Rigid frame never gets out of shape. Concealed hinges, sliding catch, lock, and key. Five compartments. Length 17 inches. Price $19.00 delivered.

MEDICAL AND SURGICAL SUPPLY COMPANY

Corinth, Miss.

THE SOUL OF THE SURGEON

BY DR. RUDOLPH MATAS

Composition Cover .... 60c; Leather Cover 85c

Send your order to:

The Mississippi Doctor — J. A. Majors Co.
Booneville, Miss. — New Orleans, La.

The Three Muskateers Book Shop
Peabody Hotel Bldg.—Memphis, Tenn.

BAPTIST HOSPITAL
Jackson. Miss.

THE WALLACE SANITARIUM

MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.

O. A. SCHMID, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

THE

WILLIS C. CAMPBELL

HUMERUS

SPLINT

3 Sizes Each $7.50

(Either Right or Left)

Wire, Write or Phone. Wall Chart on Request.

Complete Fracture Equipment

RICHARDS MANUFACTURING CO.

Phone 6-2566 Memphis. Tenn.

IN THIS ISSUE

CARDIOVASCULAR SYPHILIS
Frederick A. Willius, M. D. 1

BLOOD TRANSFUSIONS, INDICATIONS CONTRADICTIONS, RESULTS, REACTIONS AND COMPLICATIONS
Dr. Edward Clay Mitchell and Dr. James G. Hughes 11

THE TREATMENT OF EARLY SYPHILIS BY THE GENERAL PRACTITIONER
Seale Harris, M.D. 20

CASE REPORTS EMPHASIZING IMPORTANT POINTS IN DIAGNOSIS AND TREATMENT OF COMMON GYNECOLOGICAL AND OBSTETRICAL DISEASES
Lucius E. Burch, M.D., F.A.C.S. 25

ACUTE HEMORRHAGIC NEPHRITIS IN CHILDREN
L. B. Brackstone, M.D. 29

EDITORIALS 31

FROM DR. GARRISON 35

LETTERS TO THE EDITOR 35

PROGRAM: NORTHEAST MISSISSIPPI THIRTEEN COUNTY MEDICAL SOCIETY 37

CONTRIBUTORS TO *THE MISSISSIPPI DOCTOR*—1936 38

DR. H. A. GANT 40

BOOK REVIEW 41

MALARIA CONTROL ACCOMPLISHMENTS IN MISSISSIPPI-1936—
George E. Riley, M.D. 42

PROGRAM OF PEDIATRICS INSTRUCTION IN MISSISSIPPI 44

HERE AND THERE IN THE UPPER AIR PASSAGES
E. LeRoy Wilkins, M.D. 45

GONORRHEA
J. W. Jackson, M.D. 48

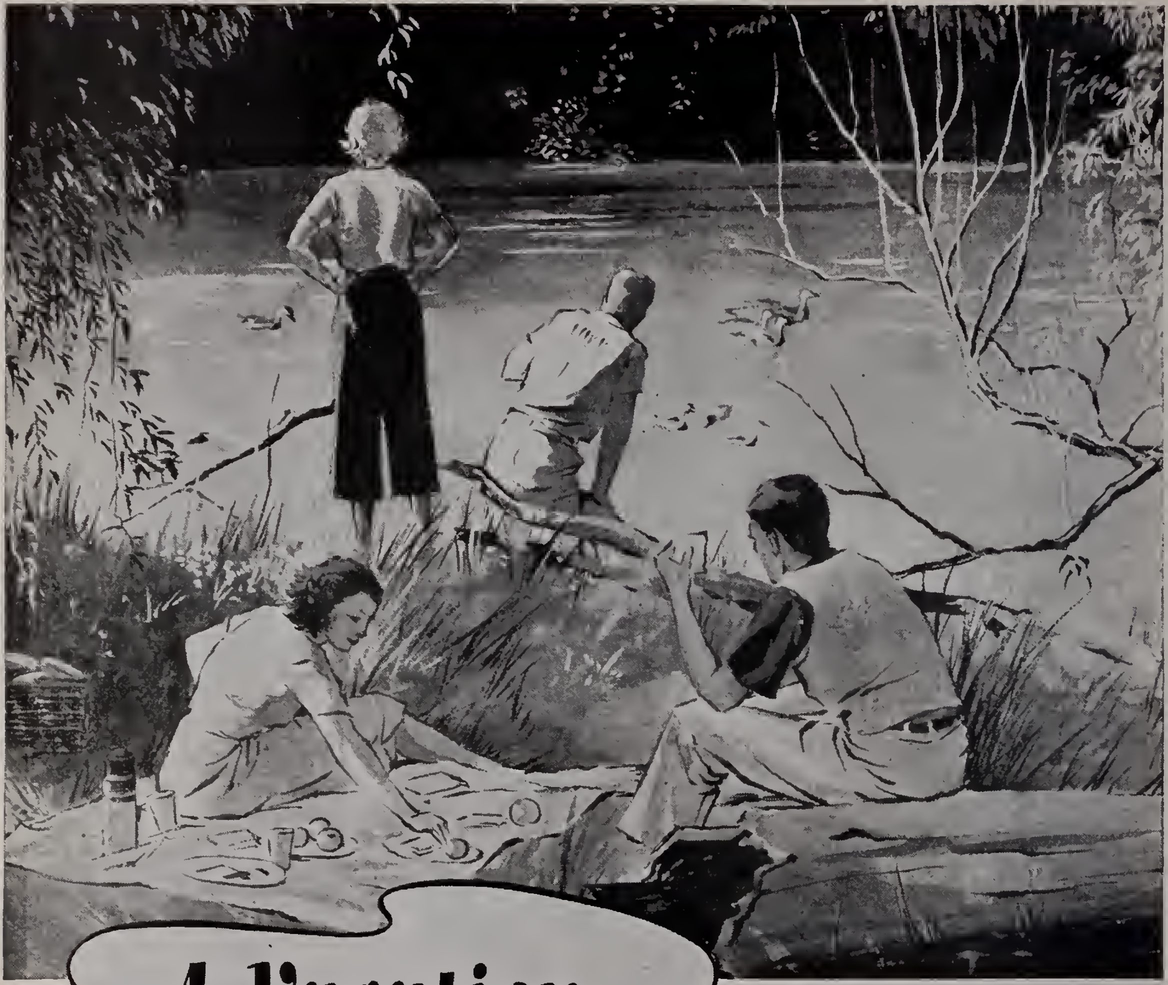
COMMON COLDS AND TREATMENT
B. H. Booth, M.D. 53

MISSISSIPPI STATE MEDICAL ASSOCIATION 54

WOMAN'S AUXILIARY 77

INDEX TO ADVERTISERS

Allison's Wells xiv
Baptist Hospital, Jackson, Miss. vii
Blue Mountain College .... inside back cover
Booneville Printing Co. xvi
Courtesy Cards xi
Duckworth Drug Co. xiv
Eli Lilly & Co. x
E. R. Squibb & Sons xviii
H. A. Phillips Artificial Limb Co. xv
Hotel Wm. Len xvii
Houston Hospital, Inc. xvi
Hoye's Sanitarium vi
J. A. Majors Co., and The Three Muskateers Book Shop vii
Jefferson Standard Life Insurance Co. iv
Lynnhurst Sanitarium iv
Mead Johnson & Co. .... inside front cover
Medical And Surgical Supply Company vii
McKesson-Doster-Northington ii
McKesson & Robbins, Inc. xv
New Fenwick Sanitarium .... back cover
Parke, Davis & Co. i
Richards Manufacturing Co. viii
Robert E. Lee Hotel vi
The Dick X-Ray Co. v
The Dr. Edwin W. Cocke Sanatorium and Clinic xv
The Gwinner-Mercer Co. ii
The Wallace Sanitarium viii
William P. Poythress & Co., Inc. iii



A Vacation Hazard

● The summer traveler or camper frequently accepts chances of infection by *Endamoeba histolytica*. Unguarded water supplies, food prepared by unknown hands, the unavoidable presence of the housefly—all contribute to the possibility of ingestion of the cysts of this organism.

Throughout the year the physician has many occasions to consider amebiasis in the differential diagnosis, inasmuch as 5 percent to 10 percent of the population of the United States is infected. The symptoms of amebic infestation are protean and suggestive of a variety of diseases of different etiologies.

Carbarsone, Lilly (p-carbamino phenylarsonic acid), is effective in treatment, is of low toxicity, and is usually successful without supplementary medication. It may be given orally in capsules or tablets, or it may be administered by retention enema. Supplied in 0.25-Gm. pulvules; in 0.05-Gm. and 0.25-Gm. tablets; in boxes of six 2-Gm. vials; and in one-ounce bottles.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Cardiovascular Syphilis*

FREDRICK A. WILLIUS, M.D.
Section on Cardiology, The Mayo Clinic
ROCHESTER, MINNESOTA

General Considerations

In spite of educational efforts and public health activities concerted in the crusade against venereal disease, syphilis still remains an important medical and sociologic problem. However, notwithstanding its devasting effects on the cardiovascular system, the incidence of cardiovascular syphilis appears to have diminished within the last two decades. This fact may be attributed to several factors: the greater frequency of early recognition and treatment of syphilis, improved and protracted methods of treatment, and an increase in other forms of heart disease during this period.

The incidence of cardiovascular syphilis varies widely in different localities of this country and varies according to the character of the practice from which statistical data are drawn. In large metropolitan areas, where data are derived chiefly from charity hospitals and when a considerable proportion of the patients are colored, the incidence of cardiovascular syphilis is extremely high. According to representative series of cases, this incidence ranges from 1 to 19.5 per cent.[1,3,11,17,18,24,27,29,30]

Cardiovascular syphilis occurs predominantly among males, the ratio being 5:1. The most reasonable explanation for this wide discrepancy in sex incidence lies in the more frequent exposure of males to syphilis, rather than to the supposition that females have a greater inherent immunity to the disease. Cardiovascular syphilis may be encountered

TABLE 1

INCIDENCE OF CARDIOVASCULAR SYPHILIS IN VARIOUS LOCALITIES

Authors	Region	Year reported	No. of patients with studied heart disease		Incidence of cardiovascular syphilis, per cent
			White	Colored	
Viko	Rocky Mts.	1930	867	0	1
White and Jones	New England	928	[illegible]43	0?	3.5*-5†
Coffen and Carey	Oregon	1928	1440	0	3*-5†
Myers	Iowa	1927	510	0	5
Wyckoff & Lingg	New York	1926	1014	37	5*-9.5†
Willius	Mayo Clinic‡	1935	3418	0	6.3
Burwell	Tennessee	1934	365	280	2.2¶-15.4**
Wood, Jones and Kimbrough	Virginia	1926	188	112	11¶ **
Stone and Vanzant	Texas	1927	501	414	19.5¶ **

*Private practice
†Hospital patients
‡Material not limited to Minnesota or the Northwest
¶White patients
**Colored patients

---

*Prepared for the fifty-third annual meeting of the Mid-South Post-Graduate Medical Assembly, Feb. 16-19, 1937, Memphis, Tenn. Meeting canceled because of flood.

in any and all age periods, but it occurs with greatest frequency among persons between the ages of forty and fifty-five years. Cardiovascular involvement may occur from congenital transmission of the disease, and therefore it may sometimes be observed in children and adolescents. McCulloch, however, in a study of 939 children with syphilis found only three with cardiac involvement. Likewise, syphilis may be acquired relatively late in life, accounting for the exceptional case of cardiovascular syphilis discovered in the advanced age periods.

Syphilis is a disease known to have several features which are particularly interesting and important with reference to the cardiovascular system. They are its extreme chronicity in most cases, the frequent long period of apparent latency from the time it is contracted until evidence of cardiovascular impairment become manifest, and the tendency for the infectious process to be rather widespread in the body, often more than one structure becoming involved. In the cases at The Mayo Clinic[28], an average of 19.5 years elapsed from the time of the chancre until signs and symptoms of cardiovascular involvement occurred. The importance of this fact merits considerable emphasis owing to the tendency of some physicians to relent in treatment and observation after the lapse of only a few years and then erroneously pronounce the patient cured, only later to discover the presence of cardiovascular disease, involvement of the central nervous system and so forth. Likewise, realization of the fact that syphilis tends to invade more than one structure of the body is extremely important, for the resulting complexity may not only tax the examiner's diagnostic acuity, but may necessitate variations in the therapeutic approach to the problem.

Pathogenesis

It is an interesting fact that cardiovascular syphilis is, with few exceptions, primarily and predominantly a disease of the aorta (Fig. 1). Involvement of other arteries occurs uncommonly, and primary involvement of the myocardium is extremely rare.

The genesis of cardiovascular syphilis has been the basis for much controversy and variance of opinion. Some investigators, notably the late Dr. Warthin, believed that the primary, predominant and most characteristic lesion was a diffuse or localized interstitial inflammation of the myocardium in which, in a remarkably high percentage of cases, he claimed to have demonstrated Spirochaeta pallida. Other equally careful investigators[2], repeating Warthin's work, were unable to duplicate his findings, and in cases in which myofibrosis was demonstrable they concluded that the changes resulted from coronary sclerosis. It is, of course, an accepted fact that the most typical myocardial lesion attending coronary sclerosis is myofibrosis.

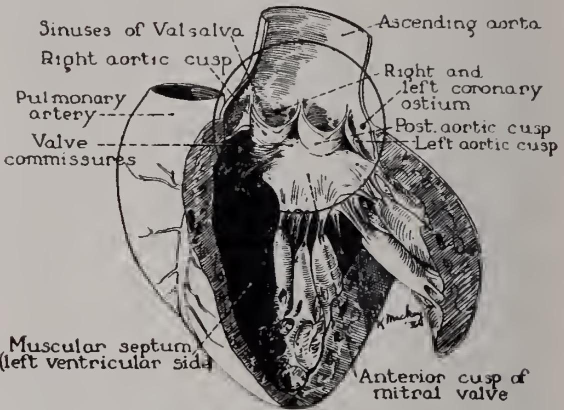


Fig. 1. Diagrammatic drawing of the heart, showing the root of the aorta (region enclosed in circle) which is the portion predominantly involved in the syphilitic process. In this region are found the aortic valves, sinuses of Valsalva and the coronary ostia.

Protagonists of this genetic concept are legion, the general consensus of opinion now relegating primary syphilitic myocarditis to the rank of a rare condition. The view that is quite generally accepted today recognizes aortitis as the primary cardiovascular expression of syphilis, but it recognizes the actual cardiac changes, with few exceptions, as being the result of mechanical barriers eventuating from the aortitis, namely, aortic insufficiency, narrowing or atresia of the coronary ostia, and aneurysm.

It is desirable to attempt to enumerate and correlate certain known facts regarding infection of the body by the Spirochaeta pallida. Considerable data are available to indicate that early invasion of the blood stream occurs even before the appearance of chancre. Particularly suggestive is the failure to prevent dissemination of syphilis by prompt excision of the primary lesion. The spirochetes multiply rapidly in the chancre and are either widely and rapidly distributed by the blood stream, or are more slowly disseminated by the lymphatics to the regional lymph nodes where apparently many of them are destroyed. In the case of penile chancre, the inguinal lymph nodes temporarily arrest progress of infection by that route and a defense adenitis results, but in spite of this attempt on the part of the body's resistive forces numerous spirochetes survive, ultimately reach the thoracic duct, and finally find their way into the venous blood channels, and then inevitably to the right side of the heart. Meanwhile those organisms that have gained entrance to the arterial blood stream have become widely distributed throughout the body.

At the time the secondary rash appears, great numbers of spirochetes have invaded the arterial blood stream, in reality constituting spirochetemia. Without question, many organisms are conveyed to the myocardium, but apparently this structure is unusually resistant to their invasion, so that in relatively few instances is the heart muscle the seat of syphilitic inflammation or gumma. The possible demonstration of the organisms in the myocardium without tissue reaction or destruction can in no sense of the word be considered as indicating disease of that structure. The period of spirochetemia appears to be of short duration and the organs of filtration and the normal resistive forces of the body quite rapidly remove the organisms from the blood stream. Early and efficacious therapy, of course, aids in this work. Meanwhile, the chancre has healed and no further infection of the arterial blood stream occurs.

From this point on a battle rages between the tissues of the body (adequate treatment being given meanwhile) and the tenacious tendency for the organism to survive. This conflict is not one of a few years but of many years, as testified by the late visceral manifestations of syphilis.

Most pathologists today are agreed on the issue that the earliest microscopic evidence of cardiovascular syphilis is found at the root of the aorta (ascending portion), in the vasa vasorum in the adventitia, where an obliterative endarteritis occurs. According to Klotz and others[10] it appears that early aortic involvement in syphilis consists of lymphatic extension from the mediastinal lymph nodes by retrograde flow into the perivascular spaces of the vasa vasorum. Thus it appears that primary involvement of the aorta occurs as a periaortitis, and that subsequently and predominantly there occurs destruction of the media.

In syphilitic aortitis the root of the aorta is usually the site of the most marked involvement, although at times the arch and the descending limb may outstandingly participate. The intima of the aorta becomes pale and wrinkled owing to destruction of the underlying media. The intima becomes thickened and occasionally may ulcerate, although such changes are far more frequently observed in marked atherosclerosis.

When the process remains limited to the aorta and none of the complications has appeared, the lesion may remain symptomless and frequently defies clinical detection (Fig. 2).

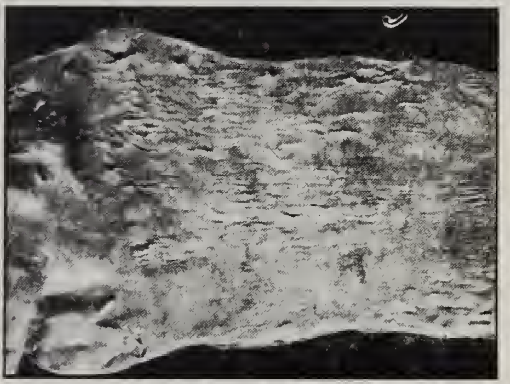


Fig. 2. Segment of thoracic aorta, showing typical syphilitic aortitis. The intima is pale and wrinkled.

The three important complications are: (1) aneurysm (diffuse or saccular), (2) aortic insufficiency, and (3) narrowing or obliteration of the coronary ostia.

Aortic aneurysm is obviously produced by weakening of the walls of the aorta, its site of origin coinciding with that of the aortitis. This in order of frequency of occurrence is: (1) the ascending aorta, (2) the arch, and (3) the descending aorta (Fig. 3). The early development of aortic insufficiency appears to lessen the chances for the development of aneurysm owing to the fact that pressure within the aorta may be reduced by virtue of the reflux regurgitant stream into the left ventricle. In recent years aortic aneurysm has become a relatively uncommon clinical finding, which is a great tribute to the earlier recognition of syphilis and its prompter and more efficient therapy.

Aortic insufficiency of syphilitic origin, however, is still a very important and serious problem. This defect results from downward extension of the inflammatory process, which primarily and predominantly involves the commissures of the aortic valves. The inflammatory process causes widening of the commissures as a result of adhesion of the cusps to the wall of the aorta, thus causing the cusps to become separated and the valve to become incompetent, permitting regurgitation to occur. Further extension of the syphilitic process in the cusps may increase the degree of insufficiency by causing retraction of the cusps and also by their adhesion to the sinuses of Valsalva. The ring of the aortic valve likewise may be involved, resulting in weakening and stretching. Thus it is evident that various pathologic changes may contribute to the production of syphilitic aortic insufficiency (Fig 4).

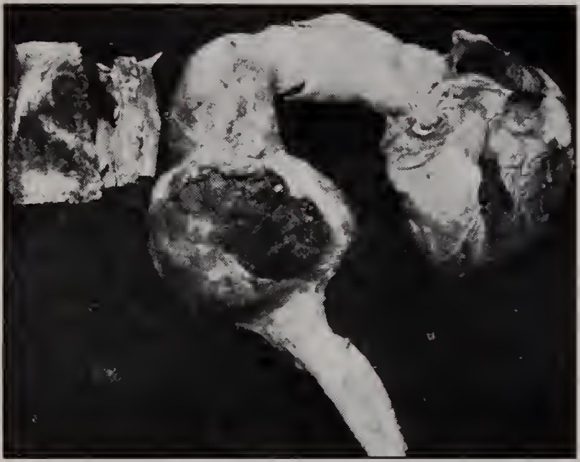


Fig. 3. Aneurysm of thoracic aorta containing an extensive mural trrombus.

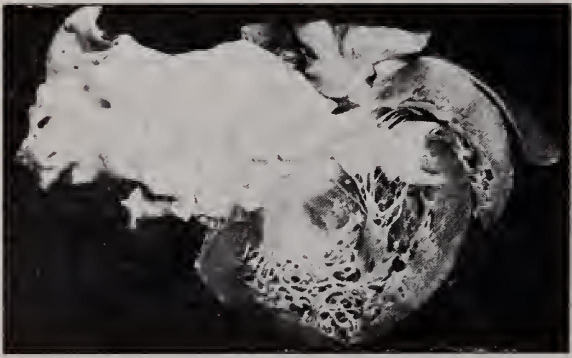


Fig. 4. Syphilitic aortic insuffiency, showing widening of the valve commissures and hypertrophy and dilatation of the left ventricle.

Aortic insufficiency obviously increases the work of the left ventricle and the walls of this chamber respond by hypertrophy. Hypertrophy is usually the only myocardial change detectable in these cases. Levine and Carr have shown in their study of differential heart weights that while the left ventricle shows the greatest degree of hypertrophy, the entire heart participates in the hypertrophic process. Dilatation of the left ventricle is an eventuality which leads to congestive failure and ultimate dissolution.

Atresia or narrowing of the coronary ostia is another serious and progressive complication of syphilitic aortitis. It occurs in about a fourth of the cases and is frequently the cause of the anginal syndrome and of sudden death (Fig. 5). This lesion may or may not be coexistent with aortic insufficiency. The genesis of this atresia appears to depend on the sclerosis which tends to succeed the earlier inflammatory changes. It occurs above the level of the attachment of the aortic cusps, avoids the aortic valves, and frequently avoids the sinuses of Valsalva[9]. Von Glahn has shown that the coronary arteries frequently have their origin above the level of the sinuses of Valsalva, and ostia in this location would obviously be more subjected to involvement than those arising at the customary lower level.

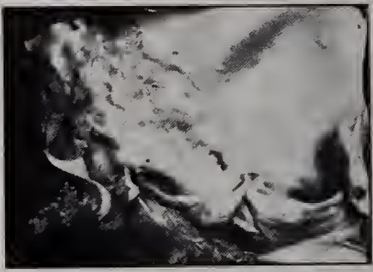


Fig. 5. Narrowing of a coronary ostium.

The effect of narrowing of the coronary ostia on the heart is not unlike that of marked obliterating atherosclerosis of the coronary arteries; in both instances impairment in the heart's nutrition occurs. Acute infarction of the heart as the result of ostial obliteration rarely occurs owing to the fact that the process is usually insidious and time is permitted for the development of some degree of anastomotic circulation. However, myofibrosis is a common finding in these cases. The syphilitic process appears to terminate abruptly in the aortic wall, for proved instances of syphilitic extension into the coronary arteries are extremely rare. The heart, under these circumstances, does not hypertrophy unless the lesion is associated with aortic insufficiency or unless some other condition, such as hypertension, is present which in itself is capable of producing hypertrophy.

As previously stated, diffuse syphilitic myocarditis appears to be an extremely rare manifestation of the disease and at this time merits only mention.

Gummas of the heart are likewise not often encountered, occurring in only about 2 per cent of the cases of cardiovascular syphilis in which postmortem examination was conducted[2]. They may be present as symptomless lesions unless they invade important cardiac structures, such as the conduction system, when they are capable of producing various grades of heart block.

Symptoms

The symptoms of cardiovascular syphilis vary greatly and are to a large extent dependent on the complicating deformities and the degree of their development. Many cases of uncomplicated syphilitic aortitis are symptomless.

The symptoms of thoracic aneurysm are well known and to a large extent are dependent on the pressure of dilatation on contiguous structures. Pain is frequent, is not specifically related to effort, is frequently of longer duration than that of the usual anginal seizure, and is often transmitted into the back. Impairment in the blood flow of adjacent vessels may occur; pressure on the air passages and esophagus and pressure on the recurrent laryngeal nerve produces hoarseness.

The subjective phenomena of syphilitic aortic insufficiency are dependent on failure of cardiac function. The earliest symptoms frequently comprise heavy beating of the heart and the feeling of pulsation in various parts of the body. Dyspnea on undue effort is a frequent symptom, and the most common mode of death is congestive heart failure. Sudden death occurs in these cases but with less frequency than in those in which narrowing or obliteration of the coronary ostia exists. Life rarely continues more than a year following the advent of congestive heart failure.

The outstanding symptoms in cases in which narrowing of the coronary ostia occurs are those of the anginal syndrome. When narrowing of the ostia, one or both, is marked, the patient may suffer frequent, recurrent, severe attacks of pain while at complete rest (status anginosis). Under these circumstances sudden death is common. Severe paroxysms of dyspnea may supplant the anginal syndrome, giving rise to the clinical picture often designated as "cardiac asthma."

Clinical Recognition

The clinical recognition of cardiovascular syphilis is of great importance and the results of treatment are, of course, dependent on the absence of complicating lesions.

Unfortunately, great difficulty is presented in the prompt recognition of many cases of early syphilitic aortitis. Symptoms may be entirely absent, physical signs lacking, roentgenographic evidence inconclusive, and electrocardiograms valueless. Many times the condition can only be suspected and only careful observation and frequent examinations during years of treatment will permit the physician to prove or disprove his suspicions.

From time to time it is possible to recognize syphilitic aortitis at an early stage by careful interpretation of a certain auscultatory phenomenon. Certain patients present a peculiar tambour-like accentuation of the aortic second tone, usually quite localized to the aortic area[28]. The first suspicion is of the presence of hypertension; but as the blood pressure is found to be normal and as this accentuation of the aortic second tone is studied more closely, it is found to possess characteristics quite different from those heard in the forceful closure of the aortic cusps in hypertension. Potain, who first described this phenomenon, called it the "bruit de taborka."

An explanation for this sign will be found when the mode of production of syphilitic aortitis is recalled. It has been pointed out that the primary involvement of the aorta occurs in the adventitia and media, with ensuing reduction in the elasticity or resilience of the vessel. This appears to be brought about by fibrotic changes in the wall and by cohesion of the aorta and contiguous structures. The diminished elasticity of the aortic wall, in the presence of competent aortic valves, increases the resistance of the artery against the inrush of blood from the left ventricle, and it may increase intra-aortic tension and cause forceful closure of the valve leaflets.

At a later stage the appearance of a reverberant systolic murmur in the aortic area may justify the diagnosis of syphilitic aortitis. It is difficult at times to differentiate this murmur from that heard in nonsyphilitic aortic sclerosis. In such cases, of course, the clinical history, serologic studies and the age of the patient may permit a clear-out differential diagnosis. One must not confuse the signs attending calcareous aortic stenosis with those of syphilitic aortitis, and this differentiation is not difficult when one is cognizant of the characteristic findings of calcareous aortic stenosis. In cases of the latter, a loud rough, systolic murmur is audible in the aortic area, with a wide range of transmission, usually a coarse systolic thrill and an absence of the aortic second tone. Syphilis never produces aortic stenosis, the only stenotic lesion occurring is atresia of the coronary ostia. The presence of aortic stenosis in syphilitic aortitis occasionally occurs but it is always the result of another etiologic factor.

When aortic insufficiency develops, typical physical signs of the lesion are demonstrable. A loud blowing diastolic murmur is audible, which frequently is heard best to the left of the lower part of the sternum, and in many cases a systolic murmur is heard best at the aortic area. Peripheral pulsations are of the water-hammer type, capillary pulsation is usually demonstrable and bruits in certain larger arteries (Duroziez's sign), conspicuously in the femoral artery, can be heard.

The clinical demonstration of aneurysm is frequently a simple procedure, particularly when the dilatation is marked and freely pulsatile. Here, in addition to the large area of dulness which can be demonstrated by percussion, a diastolic heave of the thoracic wall occurs over the involved area, a tracheal tug is demonstrable, there is frequently a smaller area of dulness over the posterior surface of the left portion of the thorax and frequently also an inequality in the volume of the pulsations in the two radial pulses. However, when the aneurysmal sac is smaller and when its pulsation has been greatly reduced by mural thrombosis or when dilatation principally involves the descending aorta, considerable diagnostic difficulty is encountered either in demonstrating its presence or in differentiating it from a solid tremor of the chest. It is under such circumstances that roentgenography is very helpful, particularly skillful use of the fluoroscope. Not infrequently, aneurysm and aortic insufficiency will be coexistent and, of course, signs of both conditions will be present.

The presence of gummas in the heart can be suspected only when complete heart block or other high-grade conduction defects are present. Even then, however, the law of probability strongly militates against the defect in conductions being the result of gumma.

I wish at this point to discuss briefly the present status of roentgenography in the diagnosis of early, uncomplicated syphilitic aortitis. A great divergence of opinion exists among physicians concerning this problem; there are some who believe that certain roentgenographic signs occur which permit the diagnosis to be made early in a high percentage of cases, while many others believe this method of examination to be helpful in the occasional case only.

In normal individuals, as age progresses, and usually beyond the age of fifty years, sclerosis of the aorta becomes manifest as one of the metamorphoses of life; the aorta tends to lose its elasticity and becomes slightly elongated owing to this phenomenon and in part to the tendency for the bodily height of the individual to become less. As the result of these changes fluoroscopic study may reveal increased density of the aortic shadow, sagging of the ascending limb to the right, and visible pulsation to the right of the sternum which is normally absent. Also, some degree of dilatation may occur. Some workers[6,15] argue that when these findings are demonstrated during the younger age periods, particularly when the cardiac silhouette is not increased, they frequently indicate the presence of early syphilitic aortitis.

While use of the fluoroscope in the recognition of early syphilitic aortitis still has possibilities, it seems important to maintain a conservative attitude toward it at present and to evaluate carefully all signs and symptoms in individual cases so that false diagnoses are not conjured through highly specialized methods alone.

The electrocardiograph is of limited value in the recognition of cardiovascular syphilis. Abnormalities in the electrocardiogram are not infrequent; however, when aortic insufficiency or narrowing of the coronary ostia occurs, then the findings on the one hand are those of left ventricular strain (T-wave negativity in lead I, or in leads I and II, less commonly incomplete bundle-branch block), and on the other those of obliterative coronary atherosclerosis (T-wave negativity in various combinations, and frequently bundle-branch block). The electrocardiogram is unaltered in the presence of aneurysm or uncomplicated syphilitic aortitis.

The serologic reactions for syphilis (Wassermann, Kahn, Kline, and Hinton) are positive in 72 per cent of cases of cardiovascular involvement. Obviously, the negative reaction does not indicate the absence of syphilis when the history and physical examination indicate otherwise. The presence of syphilis of the central nervous system (paresis, tabes dorsalis, and so forth) should at once direct the examiner's attention to the cardiovascular system for simultaneous involvement of these two systems often occurs. In The Mayo Clinic series[12], there was associated neurosyphilis in 50 per cent of the cases of cardiovascular syphilis. In a postmortem series of cases of neurosyphilis at the clinic, O'Leary[13] found cardiovascular involvement in the remarkably high incidence of 85 per cent. Study of the spinal fluid is important in cases of cardiovascular syphilis inasmuch as abnormalities are present in 50 per cent of the cases (increase in pressure, increased cell counts, positive serologic reactions, and altered colloidal gold curves). This figure, of course, parallels the incidence of neurosyphilis. The recognition of associated neurosyphilis is always of great importance as it definitely modifies the therapeutic procedure.

Course and Prognosis

The course of cardiovascular syphilis is variable. A long period of latency between appearance of the initial lesion of syphilis and the exhibition of symptoms and signs of cardiovascular participation usually signifies late and inadequate treatment, so that the cardiovascular lesions are invariably well advanced by the time they are recognized.

In a recent review of cases of cardiovascular syphilis by Cole and Usilton for the Cooperative Clinic Group some very enlightening data regarding the results of early and adequate treatment were brought to light. They found that of 935 patients in the early stages of syphilis who were followed for from three to ten years, cardiovascular syphilis developed in only 1.6 per cent. Of 105 patients followed from ten to twenty years, cardiovascular syphilis developed in 6.7 per cent. For the complete group, who were followed from three to twenty years, the graver forms of cardiovascular involvement developed in no case when treatment was adequate and was carried out regularly during the early stages of syphilitic infection.

The duration of life is usually relatively short when cardiovascular syphilis has reached an advanced stage. Sudden death is not unusual, and in all too many cases diagnosis of the true condition is first made by the coroner or pathologist. Sudden death is particularly likely to occur among patients with aneurysm and those with narrowing or obliteration of the coronary ostia. The life of those with aortic insufficiency can rarely be extended beyond a year following the development of congestive failure.

The chief complications of syphilitic aortitis have already been mentioned, namely, aortic insufficiency, coronary ostial narrowing, and aneurysm. Heart block occasionally occurs but is an unusual complication. Arrhythmias are uncommon and auricular fibrillation is, interestingly enough, rare even in the presence of congestive heart failure. When this disorder in rhythm is present, one must suspect and rule out associated cardiac disease such as mitral stenosis, the effects of hypertension and hyperthyroidism.

Treatment

The treatment of syphilis is still dominated by a great variance of personal opinion. The recent studies of the Cooperative Clinic Group[16] have materially aided in standardizing the treatment of syphilis in its early stages. Obviously, it is in the early stage of syphilis that adequate and intensive treatment makes possible the control of the disease so that the serious visceral complications of a later day are averted.

If the physician in his contacts with early cases of syphilis could be persuaded to visualize clearly the inevitable complications of the disease, he would expend much greater interest and patience in planning the therapeutic program and assume a greater responsibility for its thorough maintenance. The premise that the late manifestations of syphilis are largely avoidable cannot be denied, and only by the universal acceptance of this doctrine by both physicians and patients will constructive progress in this direction be possible.

According to the standards established by the Cooperative Clinic Group[16] the treatment of the early stages of syphilis should consist of at least twenty to thirty injections of an arsenical preparation and a comparable amount of heavy metal (mercury or bismuth).

In our treatment of cardiovascular syphilis at the clinic, we insist on complete rest in bed while the therapeutic program is being individualized, at least during administration of the first course. This is primarily done to permit close observation, prompt recognition of drug intolerance and to minimize the degree of heart load during the period of treatment. Bismuth or mercury is administered intramuscularly for a week or ten days before the arsenical preparations are introduced. At times, in the preliminary treatment, mercurial inunctions may be used.

Following this preliminary program, the arsenicals are given intramuscularly in small doses, beginning with 0.05 gm. of bismarsen or sulpharsphenamine; provided no untoward effects are noted, the dose is gradually increased at each weekly injection so that at the end of the sixth week 0.2 to 0.4 gm. of either preparation is being given. If any reaction is noted the succeeding dose is reduced in amount, or this form of treatment is temporarily or permanently abandoned as the indications warrant. Occasionally the course of treatment with the arsenicals is prolonged for eight or ten weeks.

Then, following the lapse of a month, the same procedure is repeated, or the second course may consist of injections of bismuth or mercurial inunctions, or a bismuth preparation containing approximately 65 per cent of the metal, which should be given intramuscularly twice a week for a series of twenty injections. Following a month of rest, the administration of bismarsen or sulpharsphenamine is repeated.

The active periods of treatment should be extended over at least two or three years and the patient should be observed closely far beyond this arbitrary period. Even after the disease seems to be under control, as evidenced by negative serologic reactions, apparent arrest in the progress of the lesion and improvement in the patient's general condition, occasional courses of the aforementioned treatment are indicated.

The attempt, of course, must always be made to individualize treatment; a standard form of treatment is not only difficult but hazardous. The many variables that enter the problem of treatment make this apparent and the age of the patient, the duration of his infection, his general condition, the type and extent of the cardiovascular damage, the presence of complicating syphilitic or nonsyphilitic lesions, and previous treatment, are only some of the considerations that confront the physician.

It is important to emphasize the fact that the type and the extent of cardiovascular damage must predominantly influence the therapeutic approach in a given case. In cases of advanced cardiovascular syphilis, especially in the presence of aortic insufficiency, narrowing of coronary ostia and aneurysm, treatment should be extremely conservative and cautious. The dangers of therapeutic enthusiasm vastly overshadow any reasonable anticipation of cure, the most that can possibly be looked for being retardation of the progress of secondary mechanical barriers and possibly a relatively short prolongation of life.

The reasons for this attitude become evident when it is recalled that the inflammatory process of syphilis constitutes a reparative fibrosis complicated by considerable sclerosis, so that the healing process itself frequently leads to irreparable damage. Not infrequently, certain patients with cardiovascular syphilis receive treatment largely planned in the hope of controlling the neurosyphilis rather than anticipating any material improvement in the cardiovascular condition.

When congestive heart failure occurs, which is largely limited to cases with aortic insufficiency, specific therapy should be extremely conservative or withheld entirely. Under such circumstances the careful oral administration of iodides and small doses of mercury may be considered, although their value in such cases is extremely doubtful. Treatment in such cases then reverts to treatment of the congestive failure, regardless of the underlying pathologic process.

When narrowing of the coronary ostia occurs, that is, in those cases predominantly displaying the anginal syndrome, only very conservative treatment is ever indicated. It is very doubtful whether exhibition of the arsenicals is justified at any time. Proliferative tissue reaction under these circumstances would obviously produce sudden death. Likewise in the presence of aneurysm treatment should be cautious. It is again important to realize the fact that in the treatment of advanced cardiovascular syphilis the most that can be hoped for is relief or improvement of symptoms and possibly the arrest of pathologic changes already present. In aneurysm, particularly, one should be concerned chiefly with relief of such distressing symptoms as pressure pain and mechanical effects on contiguous structures. Frequently, considerable relief obtains in those cases in which considerable periaortitis and mediastinitis exist, and when a chance of altering these conditions is present, subjective improvement may result. In the case of aneurysms, when thin-walled regions are present, the danger of spontaneous rupture is ever present. It is impossible to anticipate these changes clinically with any degree of certainty, so that in the treatment of aneurysm this hazard of rupture must always be entertained.

With aneurysm, as with narrowing of coronary ostia, the possibility of the occurrence of the Herxheimer reaction and the so-called "therapeutic paradox"[25,26] must always be considered. The former, in the case of the aorta, is an acute reaction in the vessel wall with edema, weakening of the wall, and rupture within twenty-four to forty-eight hours after treatment. The latter, a more insidious affair, is characterized by apparent improvement at first, with marked accentuation of symptoms later, presumably the result of too rapid healing in the wall of the aorta with fibrosis, distortion and contraction.

General cardiac management in cases of cardiovascular syphilis is important. As in any well ordered regimen, individualization of such treatment is greatly desired and the patient's life may frequently be prolonged by permanent restriction of physical activities. In order to be successful the regimen must be instituted early and be maintained throughout the life of the individual.

In considering the problem of cardiovascular syphilis, therefore, we are inevitably returned to the problem of recognizing syphilis early and the necessityof its adequate and prolonged treatment. In this manner only is it possible to envision a more thorough control of the disease and avoid many of its incurable sequelae.

References

1. Burwell, C. S.: The problem of heart disease. Journ. Tennessee State Med. Ass'n. 27:111-115 (April) 1934.
2. Clawson, B. J. and Bell, E. T.: The heart in syphilitic aortitis. Arch. Path. and Lab. Med. 4:922-936 (Dec.) 1927.
3. Coffen, T. H. and Carey, H. A.: Examination of over 3,000 school children for heart disease. Northwest Med. 27:184-186 (April) 1928.
4. Cole, H. N. and Usilton, Lida J.: Cooperative clinical studies in the treatment of syphilis: cardiovascular syphilis. I. Uncomplicated syphilitic aortitis: its symptomatology, diagnosis, progression and treatment. Arch. Int. Med. 57:893-909; II. Syphilitic aortic regurgitation: its treatment and outcome. 910-918; III. Aneurysm: its symptomatology, diagnosis, treatment and outcome. 919-926 (May) 1936.
5. Klotz, Oskar: Some points respecting the localization of syphilis upon the aorta. Am. Jour. Med. Sc. 155:92-100 (Jan.) 1918.
6. Kurtz, C. M. and Eyster, J. A. E.: Fluroscopic studies of the heart and aorta in acquired and congenital · syphilis. Am. Heart Jour. 6:67-75 (Oct.) 1930.
7. Levine, Victor and Carr, J. G.: Cardiac weights. Arch. Int. Med. 52:429-446 (Sept.) 1933.
8. McCulloch, Hugh: Congenital syphilis as a cause of heart disease. Am. Heart Jour. 6:136-141 (Oct.) 1930.
9. Martland, H.S.: Cardiac syphilis (syphilitic aortitis). Jour. Med. Soc. New Jersey. 24:689-701 (Dec.) 1927.
10. Martland, H. S.: Syphilis of the aorta and heart. Am. Heart Jour. 6:1-29 (Oct.) 1930.
11. Myers, M. M.: The symptoms of heart disease. A general discussion of pain and palpitation and a report of a study of 1,000 consecutive patients. Jour. Iowa State Med. Soc. 17:388-393 (Nov.) 1927.
12. O'Leary, P. A.: Personal communication to the author.
13. O'Leary, P. A.: Personal communication to the author.
14. Potain: Quoted by Gibson, G. A.: Diseases of the heart and aorta. Edinburgh, Y.J. Pentland, 1898. p. 827.
15. Steel, David: The roentgenological diagnosis of syphilitic aortitis—a review of forty proved cases. Am. Heart Jour. 6:59-65 (Oct.) 1930.
16. Stokes, J. H., Cole, H. N., Moore, J. E., O'Leary, P. A., Wile, U. J., Parran, Thomas, Jr., Vonderlehr, R. A. and Usilton, Lida J.: Standard treatment procedure in early syphilis. A resume of modern principles. Ven. Dis. Inform. 15:149-161 (April); also Jour. Am. Med. Ass'n. 102:1267-1272 (April 21) 1934.
17. Stone, C. T. and Vanzant, Frances R.: Heart

disease as seen in a Southern Clinic. A clinical and pathologic survey. Jour. Am. Med. Ass'n. 89:1473-1477 (Oct. 29) 1927.

18. Viko, L. E.: Heart disease in the Rocky Mountain region. Am. Heart Jour. 6:264-273 (Dec.) 1930.
19. Von Glahn, W. C.: Coronary disease and infarct of the heart. Pro. New York Path. Soc. 23:107-112, 1925.
20. Warthin, A. S.: Congenital syphilis of the heart. Am. Jour. Med. Sc. 141:398-411 (March) 1911.
21. Warthin, A. S.: Primary tissue lesions in the heart produced by Spirochete pallida. Am. Jour. Med. Sc. 147:667-672 (May) 1914.
22. Warthin, A. S.: The new pathology of syphilis. Am. Jour. Syphilis. 2:425-452 (July) 1918.
23. Warthin, A. S.: Sudden death due to exacerbation of latent syphilitic myocarditis. Am. Heart Jour. 1:1-24 (Oct.) 1925.
24. White, P. D. and Jones, T. D.: Heart disease and disorders in New England. Am. Heart Jour. 3:302-318 (Feb.) 1928.
25. Wile, U. J.: The treatment of the syphilitic liver and heart: a therapeutic paradox. Am. Jour. Med. Sc. 164:415-428 (Sept.) 1922.
26. Wile, U. J.: Principles underlying the treatment of cardiovascular syphilis. Am. Heart Jour. 6:157--160 (Oct.) 1930.
27. Willius, F. A.: Unpublished data.
28. Willius, F. A. and Barnes, A. R.: Syphilitic aortitis. Minnesota Med. 7:227-231 (April) 1924.
29. Wood, J. E., Jr., Jones, T. D. and Kimbrough, R. D.: The etiology of heart disease. A clinical study of 623 cases with certain observations on race and climate. Am. Jour. Med. Sc. 172:185-194 (Aug.) 1926.
30. Wyckoff, John and Lingg, Claire: II. Etiology in organic heart disease. Am. Heart Jour. 1:446-470 (April) 1926.

Blood Transfusions, Indications, Contradications, Results, Reactions and Complications*

DR. EDWARD CLAY MITCHELL, DR. JAMES G. HUGHES
MEMPHIS, TENN.

In recent years the use of blood has grown to be probably the most frequent procedure in all lines of practice. A scientifically administered transfusion is the nearest approach to a perfect tonic in modern medicine. Once used as a futile gesture in the final fight against a hopeless situation, today a blood transfusion is a valuable therapeutic measure for the surgeon, the internist, and especially the pediatrician.

The transferring of blood from the donor to the patient is more than a simple intravenous medication and the potential dangers should modify our judgment in the selection of the time and frequency of its administration.

Last year, 1936, in the Baptist Memorial Hospital alone there were 7,793 persons typed and cross-matched, an average of 21 persons a day in a hospital of about 400-bed capacity. This hospital attracts patients from all over the Mid-South. This is the experience of only one hospital.

When I selected this subject, your Chairman felt that perhaps it might not be of general interest because this audience would be composed largely of general practitioners who have not the proper facilities for typing and matching that is essential for a transfusion to be given without danger. But the young man graduating at the present time on serving an internship in the modern hospital is preparing himself in this technique. He is realizing the benefits derived from the use of blood. If this procedure is not just a fad and we are really receiving the benefits that now appear to be the case, the time will come when every community will be fully prepared to administer this necessary type of therapeusis and every practitioner must be familiar with the benefits, the indications, the technique, and the potential dangers.

For this reason we feel that the experimental phase of the use of blood for treatment, as well as prevention of disease, is largely passed and we are now in an era of comparative standardization of theory and technique, and the present time is a good occasion to take stock of our knowledge.

It is the purpose of this paper to review in as brief and simple a manner as possible the important facts about transfusion, giving in brief some of our own experiences in the form of case reports. Likewise a tabulation of 412 transfusions to 252 pediatric patients during the year 1936 on the two services connected with the University of Tennessee, the Baptist Memorial Hospital and the John Gaston Hospital.

Indications for Blood Transfusion—

Clinical experience has shown that these conditions may be roughly divided into five main groups:

1. *Hemorrhage and Shock*

In acute, massive hemorrhage from any cause not only is there resultant injurious anemia but there is a reduction of the volume of fluid in circulation which produces a fall in blood-pressure and a weak, rapid pulse. All this leads to a diminution of nourishment for the body cells. Transfusion restores the lost erythrocytes and builds up the blood volume so that these injurious effects are corrected.

In shock there is a collapse of the circulation, supposedly due to dilatation of the vascular bed with a consequent relative decrease in circulating blood volume. Transfused blood is more effective than other fluids in restoring blood volume because it remains in the circulation longer.

CASE REPORT. Herbert P. 7-7-34. Male,

---

*Read before the Mississippi State Pediatric Society, Meridian, Miss., May 10, 1937.

normal birth, weight 8¼ pounds, age 14 days. He was perfectly normal until he was circumcised on the thirteenth day. He began bleeding from the circumcision wound. Whole blood, 30 c.c., was administered intramuscularly. There was bleeding from the punctured wound. Injections of theelin were tried. Local stasis was attempted by every known method. There was no history of familial type of bleeding. This has been investigated since numerous times and still we can obtain no evidence. At time of admission the red cell count was 1,600,000, hemoglobin 30 percent, white cell count 4,900. There was no appreciable change in the platelets. The clotting time was 38 minutes. The bleeding time was undetermined. Because of the fact that the child bled profusely from even skin punctures, and there were no scalp veins available because of collapse; the jugular vein was likewise collapsed. It was determined to break an established precedent and give a transfusion into the longitudinal sinus. The mother's blood being the only one available that typed and matched, 100 c.c. together with additional saline containing 5 percent glucose was given. The hemorrhage stopped almost immediately. There was no further hemorrhage for 24 hours. Then again all surfaces began bleeding. At this time the hemoglobin had risen to 50 per cent, the red cells, 3,000,000: the white cells 6,000. There was still no change in the platelets. Blood was then obtained from a professional donor, 100 c.c. with addition of fluids, was given by means of the same sinus. In both instances there was a direct transfusion by the multiple syringe method; the only citrate used was to clean the syringes. After the second transfusion the hemorrhage entirely stopped: the hemoglobin after twenty-four hours was 68 percent; the red cells, 3,800,000. The child remained in the hospital for five days. At the time of discharge the hemoglobin was 76 percent and the red cell count, 4,500,000. The child's condition appeared to be good. There was no further trouble for two months when the child had a fall. There was a large bruise on the hip. There was bleeding from the mucous membrane surfaces of the nose and mouth. The hemoglobin again dropped. The child was transfused the third time. The child is now approximately three years old and has had fifteen transfusions. The longest period between transfusions was the last interval of six months. His general appearance after the transfusion is good. His weight at the present time is normal for this age. He recently began to bleed spontaneously from the nasal membranes. At the time of this admission his hemoglobin was 56 percent, red cells 3,770,000, and platelets still normal. There was a distinct purpuric rash over the body. The bleeding did not stop after the first transfusion and after three days we gave a second transfusion 300 c.c. of blood non-citrated being given at each transfusion. The second time the bleeding stopped.

The child was seen two days before writing this case history. One week after the last transfusion his hemoglobin was 76 percent, red cell count, 4,500,000. Other means of combatting anemia have been used continuously, including diet, iron, liver, et cetera. X-ray has been used over the spleen. This case is reported for two reasons; in the first place, I hope some one can tell us the correct diagnosis; and in the second place, we think it demonstrates what can be done in repeated hemorrhages by blood transfusion.

2. *Infections, With or Without Secondary Anemia*

Perhaps the most widespread use of blood transfusion, in pediatrics at least, is in the field of infections. This is partly due to the fact that there is so frequently an associated secondary anemia which is corrected by transfusion. But in addition to combatting secondary anemia, transfusion by supplying additional immune bodies as in immuno-transfusions, increases the resistance of the patient to the disease process. In most infections there is a tendency toward dehydration and toward acidosis, conditions which are combatted by transfusion. Finally, transfusion supplies some measure of nourishment to the patient.

CASE REPORT. Jacqueline S., female, age 9 years. Because of pain in the ear there was double paracentesis. She was first seen by me the fourth week with a history of the left ear discharging since original paracentesis. At the time of admission there was a marked suppression of the urine which was dark mahogany in color and only four ounces were passed in twenty-four hours. There was four plus albumin and numerous pus cells. The N. P. N. was 42. The blood pressure was

142/98. The x-ray showed destruction of the left mastoid. On admission the temperature was 105 and septic in type. The blood count was: hemoglobin 56 percent, red cells 2,100,000; white cells, 32,300. A diagnosis was made of acute mastoiditis and acute glomerular pyelonephritis. Magnesium sulphate was given intravenously. After 24 hours the amount of urine very materially increased. The blood pressure dropped. The N. P. N. became normal. The child's condition improved though the temperature remained high. After three days' treatment with magnesium sulphate by mouth, the amount of urine passed became almost normal, the blood pressure remained 120/90; her condition was undoubtedly secondary to a focus of infection in the mastoids. It was deemed necessary to drain the mastoids. The surgeon requested a transfusion before operation. 300 c.c. of blood non-citrated were given. There was no increase in the blood pressure. The mastoid was found to be full of pus and needed almost a semi-radical. There was no reaction following the operation. Magnesium sulphate and salt free diet were continued until the albumin largely cleared up in the urine. There still remained numerous pus cells; the temperature remaining high and septic in type. Culture taken from the bladder showed staphylococcus aureus. The same organism was found in culture of the mastoid. The blood culture was negative. Five days following operation the hemoglobin was 73 percent, red cells 4,000,000, and white cells 12,700. The sixth day following operation the hemoglobin was 70 percent, red cells 3,900,000, white cells 14,000. The eighth day following operation the hemoglobin was 60 per cent, red cells 3,200,000, white cells 12,800. At this time a second transfusion was given, 300 c.c. The day following this transfusion the hemoglobin was 80 percent, red cells 5,000,000, white cells 12,000. The child was treated for the pyelitis with syrup of amdylate for six days; the temperature dropped to normal. At time of discharge there was still a few red cells in the urine. The culture from the urine was negative. The blood pressure was 108/70. The child's condition was good. There had been no fever for one week. The child was seen May 6, 1937. There were still a few red cells in the urine and an occasional pus cell. The blood pressure was 100/68. The child's condition was good. The hemoglobin was 76 percent, red cells 4,300,000; white cells were normal.

This case was presented for two reasons: first, because of undoubted benefit of blood transfusion in sepsis; and second, in selected cases blood transfusion may be given to a nephritic with moderately increased blood pressure. We have seen in several instances, in this type of case the blood pressure was lowered following transfusion.

3. *Prematurity, Immaturity and that group of similiar conditions variously known as Malnutrition, Nutritional Anemia, Athrepsia, marasmus, and decomposition.*

The above conditions constitute a third group for which transfusion may be indicated.

These infants have in common a deficient metabolic machine which leads to failure to gain weight, weight loss, nutritional anemia, dehydration, and weakness, all of which join together to open the door to intercurrent infection.

Transfusion increases the volume of circulating blood, thereby increasing the rate of blood flow, which in turn helps the cells of the body in their metabolic activities. The additional red cells increase the oxygen carrying capacity of the blood. A third factor is that the blood itself has food value. As mentioned before transfusion may combat an engrafted infection.

For these so-called "metabolically bankrupt" infants transfusion of blood is only one phase of the treatment for a proper management of the diet, parenteral fluids, and the treatment of any co-existing infection are necessary.

CASE REPORT. Bobby B., admitted 2-19-37, age 9 months. His weight at birth was five pounds. He was an only child and was delivered by Caesarean section. His weight on admittance to the clinic was seventeen pounds, six ounces. His color was pale; the head was large, and the scalp veins were prominent. There was blueness around the mouth. The muscles were flabby. The mucous membrane was pale. There was a distinct picture of rickets as evidenced by the pigeon breast, large abdomen, no teeth, and delayed closing of the fontanelles.

The hemoglobin was 35 percent, red cells 3,760,000, white cells 12,700, polymorphonuclears 8, small lymphocytes 90, and eosinophiles 2. The red blood cells were very small and irregularly shaped. The platelet count was normal. The day following admission 150 c.c. of non-citrated blood, with addition of saline because of some degree of dehydration, was given intravenously. The day following transfusion the appetite which had been poor was very much improved. The hemoglobin was 67 percent the second day following the transfusion with red cell count of 4,820,000. The third day the hemoglobin was 70 percent, with the red cells 4,900,000, and the white count normal. The fourth day the hemoglobin was 72 per cent, with 4,970,000 red cells; and the fifth day the hemoglobin was 66 percent, with 4,910,000 red cells. As there was some drop in the hemoglobin it was decided to give a second transfusion. Again 170 c.c. of whole blood were given. The fifth day following the second transfusion the hemoglobin was 82 percent, the red cells 5,450,000. The child was eating well. He was discharged home after diet supervision and was also given vitamins and iron. He was seen two weeks later and the hemoglobin was 74 percent, red cells 4,900,000. The child's appetite was still very good. He had gained in weight over one pound. This was the first gain in two or three months. He has gained steadily and when last seen the hemoglobin was 75 percent, with 4,350,000 red cells.

This case is given in detail because it has been our usual experience particularly in this type of case to have the hemoglobin and red cells gradually rise after a transfusion for approximately five days. At the end of that time they remain stationary or begin to drop. When this drop of hemoglobin occurs we consider it an indication for a second transfusion. It has been our experience after the second transfusion the haemopoetic system takes up the burden and further help is unnecessary other than general care.

4. *Alimentary Intoxication*

A fourth group for which transfusion is indicated is what has been called "Alimentary Intoxication," a condition whose chief dangers are diarrhea and vomiting, leading to extreme dehydration of the body which results in decreased blood volume, decreased rate of blood flow, and acidosis, or in some cases, alkalosis.

Any of the diarrheas or dysenteries, or prolonged vomiting from any cause, may produce this condition. Again, transfusion is only part of the treatment but it is an important part for it restores blood volume and flow, combats acidosis or alkalosis, gives a certain amount of nourishment, and helps in the struggle against possible intercurrent infection.

Before giving the case report it would be well to emphasize that in this type of case, transfusion should never be given an anhydremic child until the dehydration has been relieved to a large extent. This fact was first discussed by Marriott and Hartmann[1], that it is extremely dangerous to give blood to a dehydrated child because of increased blood concentration, particularly the plasmo-protein content. This fact was also emphasized by Dr. Strong[2] in his series of lectures in your state on the subject of "Diarrhea."

Case Report. Mary B., age 2½ years, had been sick three days before being admitted to the hospital. The illness began with vomiting, fever 103, and diarrhea. The number of stools rapidly increased so that at the time when first seen by me she was having approximately thirty stools daily. The character was becoming more and more bloody mucous. The temperature curve was septic in type and ranged between 101 and 104. The child could retain neither food nor water. The blood findings were: total white count 30,000; hemoglobin 105 percent, red cells 5,900,000; polymorphonuclear count 70 percent. The N. P. N. was normal. There were no symptoms of either acidosis or alkalosis. A culture from the stools was made. The child's weight was approximately thirty-five pounds. She was given 1500 c.c. of Hartmann's solution containing 5 percent glucose intravenously by the drip method, thirty drops to the minute. When this fluid had been given a second blood examination was made.

The hemoglobin was 66 percent, red cells 3,200,000, white cells 15,000. The vomiting had stopped. After stomach lavage she was able to retain fluids by mouth. At this time 200 c.c. of non-citrated blood were given intravenously through the same canula which had been left in situation for the continuous drip. The stool culture showed Shiga dysentery. Feeding consisted of one pint of water to which had been added one teaspoonful of lactic acid U. S. P., and six tablespoonfuls of Dextri Maltose was added to one pint of evaporated milk. The first day two ounces were given every four hours. This was doubled the second day and further increased by the addition of jello, thick veal broth, and small amounts of toast. The blood examination the second day after transfusion was: hemoglobin 82 percent, red cells 4,500,000. The fifth day there was a drop in the hemoglobin to 68 percent with 3,600,000 red cells. A second transfusion was then given. No other fluid was necessary as the child was retainiong everything by mouth. On the fifth day following the second transfusion the hemoglobin had again risen to 80 percent, the red cells to 4,600,000. The feeding was increased until the normal number of calories were taken. The child was discharged at the end of the third week in good condition.

It is our custom wherever possible to give fluids by mouth as this is the natural way. We give them parenterally only when they can not be retained through the alimentary tract.

5. *Blood Dyscrasias* and certain allied conditions are further indications for transfusion although in some instances transfusion is a palliative and supportive rather than a curative measure. Such conditions, as hemophilia, thrombocytopenic purpura, hemorrhagic disease of the newborn, Hodgkin's disease, the leukemias, the congenital anemias, icterus gravis, all belong to this fifth group. Here transfusion acts usually by either simply combatting anemia, or by a hemostatic effect.

No case report is given here because we all realize that such conditions as thrombocytopenic purpura and hemorrhagic disease of the newborn are amenable to transfusion and should be given the benefit of this treatment early. However, in Hodgkins disease and the anemias, transfusion only prolongs a hopeless situation.

Immuno-Transfusion and the use of immune blood

While perhaps strictly speaking this should not come under the subject of tranfusions, I feel this discussion would be incomplete without a brief mention of the various uses of blood in the prevention of contagion.

Prevention

(a). Immune or convelescent serum is being used with excellent results in the prevention of measles, whooping cough, chickenpox, mumps and scarlet fever, but has doubtful value in some of the other conditions, particularly acute anterior poliomyelitis.

(b). Whole convalescent blood in the form of transfusion is being used in the treatment of these various conditions; also whole pooled blood, particularly from the city dweller who has been exposed to the sub-morbid type of inoculation, has been used with benefit.

Some Basic Facts upon which Transfusion Rests

The scientific basis upon which modern transfusion rests is the knowledge of blood grouping. It has been found that human blood may be divided into four main groups according to the classification of Moss and of Jansky.

These groups depend upon the presence in the blood of two substances, agglutinins and agglutinogens, which by interacting cause a process of clumping of the blood cells to occur, which is called agglutination. Hemolysis may also occur.

The interacting substances are so arranged that when blood is given from a person of one group to another person of the same group no clumping or hemolysis occurs, unless in spite of being members of the same main group the two persons are members of different sub-groups.

A person's blood is classified by a process called typing of blood, which consists in testing the interaction of the donor's blood with known types of blood serum kept as standards in the laboratory. According to how an individual's blood reacts with these known specimens of blood he will be classified into one of the four main groups. But since a difference of sub-groups, not detectable by typing alone may exist between donor and patient, their blood must be tested together in the laboratory before transfusion in order to prevent a reaction due to incompatibility. This process of testing directly the bloods of donor and recipient is known as cross-matching.

At the Baptist Memorial Hospital it is obligatory to both type and cross-match every case of transfusion administered in the hospital. In a period of six years with a large number of cases we have had but one death and very few reactions of consequence. We have found that typing facilitates transfusion for two reasons. Every individual typed is given a slip with his type number. In case he is called again it simplifies very much the laboratory procedure as this donor is called again only for a recipient of his type. We also keep a registry of professional donors listed according to the type. It can be safely said that typing rarely ever changes. Cross-matching should be done preferably within twenty-four hours of the time of the transfusion.

One fallacy that should be mentioned is that the blood of the infant will always cross-match with that of the mother. We have had instances where they were not even of the same type.

CASE REPORT. Joseph C. He was first admitted June 17, 1930, age 9 months, weight 13 pounds, 12 ounces. The complaint was failure to gain in weight, anemia, irregular temperature. The temperature on admission was 102. He had a red throat. The chest was clear. The ear drums were red but not bulging. A diagnosis was made of acute upper respiratory infection. The blood count showed: hemoglobin 66 percent, red cells 3,000,000, white cells 20,000, lymphocytes 72, polymorphonuclears 26 percent, eosinophiles 2. Malaria was negative. The urine was negative. After the acute condition subsided the hemoglobin was found to be 78 percent, red cells 2,800,000, white cells 15,600. A transfusion was given. The father and mother were both typed and matched. 150 c.c. of whole blood non-citrated was given from the father. There was no reaction. After transfusion the appetite increased; there was little or no fever. The second day following the transfusion, the hemoglobin was 64 percent. Five days after transfusion the hemoglobin was 72 percent with an increase in the red cell count. He was discharged with diet regulation and supplementary treatment. He returned one month later with a slight diarrhea. The temperature was 102 and the right ear was discharging. The hemoglobin was 62 percent, the red cells 2,900,000, the white cells 14,800, with an increase in the polymorphonuclears. The condition did not improve for one week. An examination by the otologist coupled with the x-ray findings showed involvement of right mastoid with possible invasion of the left as well. At this time the hemoglobin was 56 percent, red cells 2,800,000, white cells 18,000. It was decided to give a second transfusion and then drain the mastoids. The mother and father were both re-matched but not typed. Both were compatible. The mother was used so there would be no danger of an anaphylactic reaction from using the same donor twice.

Blood transfusion was started at 9:30 a.m. The rectal temperature at this time was 101. 150 c.c. of blood were given by the direct syringe method. Because of some difficulty in obtaining the blood from the donor 50 c.c. of normal saline were used in keeping the needle open. The child did not fight nor cry an unusual amount. Just as the last syringe of blood was being given the child became very cyanotic and had a slight rigor on the table. The syringe was quickly withdrawn. Two minims of adrenalin were given. The child still remained cyanotic and had a hard rigor when removed to the room. The temperature gradually rose to 107; finally to 109 at the time of death. The respirations were shallow and rapid, fifty to sixty to the minute. The first convulsion was quite severe, about four hours after the transfusion. These convulsive seizures lasted intermittently until the time of death, which occurred nine hours after the transfusion. During the last two hours of life ecchymotic spots appeared which gradually coalesced all over the body. These disappeared on pressure. There was no bleeding from any of the mucous membranes. The urine showed hemoglobin shortly before death. There was marked dilatation of the heart previous to death. Autopsy was performed immediately.

Investigation of death following transfusion was continued by the Department of Pharmocology because of the fact that immediately following the transfusion a child given saline intravenously developed fever 105 with slight rigor while still on the table. This reaction was temporary. The patient recovered completely within two or three hours. At that time the flasks containing saturated solution of boric acid, saline and distilled water were all the same color and labeled only by a "sticker" Due to the coincidence of the temporary reaction in the second patient the question arose as to whether the wrong solution might have been used. Unfortunately the flasks used had been emptied. All solutions used for intravenous medication were prepared in the operating room. The only toxic solution used the boric acid. We obtained twice the amount of a similar solution and injected it into rabbits with no ill effects. A few days later four times by weight of the same solution was also injected into the rabbits with no ill effects.

The pathological examination was very complete. There were no particular findings. The heart's blood of the infant immediately after death was typed and cross-matched with the blood of the donor and still showed compatibility.

We have presented a case of death following blood transfusion and characterized by:

1. Compatibility of donor's and patient's red cells. The blood still matched and typed perfectly with that of the donor.
2. There was a lack of hemolysis in substantial quanity in the patient's blood and organs.
3. There was universal skin capillary dilatation.
4. There were small hemorrhages in the heart muscles and thymus cords.
5. There was the presence of peculiar large cells in the spleen and lungs.

The Pathological Department could not ascertain the cause of death.

Types of Tranfusion

The two main types of transfusion are the direct transfusion, in which the whole, unmodified blood is used; and the indirect transfusion, in which an anticoagulant, usually sodium citrate, is added to the blood.

Direct Method—

There are two chief ways in which blood transfused directly:

1. The Lindemann or multiple syringe method, which we use when we employ direct transfusion. An assistant withdraws a syringefull of blood from the donor, hands the blood to the second assistant, usually a nurse, who hands it to the surgeon, who immediately injects it into the patient, the cycle being repeated as often as necessary to transfuse the desired amount of blood.
2. The stopcock method employing a closed system of tubing from the donor's vein to that of the recipient, the blood being aspirated from the donor and pumped into the recipient by a syringe, with a stopcock controlling the direction of the flow. The well-known Scannel apparatus is an example.

Recently the Louis Jube direct transfusion set has become popular in Memphis.

Indirect Method—

A solution of sodium citrate, whose final concentration when mixed with the donor's withdrawn blood will be about 0.25 percent, is used. The blood may be taken from the donor by simply allowing it to run through sodium citrate solution, or by multiple syringe technique, or using an aseptic mouth-suction apparatus with a collecting bottle. It is usually then filtered through several layers of gauze into a gravity bottle. However, it may be injected by the multiple syringe method or the stopcock method as with the uncitrated blood.

Comparsion of the Different Methods of Blood Transfusion

After examining the records over a period of years in the private service at the Baptist Memorial Hospital, we have had undoubtedly fewer reactions from the use of non-citrated blood. This however, requires operation room technique, and trained assistants, to be given without danger.

The citrated method has the advantage: first, that it can be given with less assistance. Second, the blood may be obtained and used without the presence of the donor, which is particularly valuable on the charity service. By keeping a small amount of blood for cross-matching the bulk may be citrated and kept in sealed jars for further use.

Dangers to be Avoided

1. It is best to insist on both typing and matching. If either is omitted it should be the typing. The donors are not typed at the John Gaston Hospital the large number of transfusions prohibit.

   The records show that perhaps there are more reactions at this hospital than at the other institution where both typing and matching are required, but considering the number given the reactions are few.
2. All apparatus used in the indirect method must be well rinsed with citrate solution to prevent formation of clots within the apparatus which might not only stop up the needle or tubing, but might cause a reaction to the recipient.
3. Freshly distilled water should be used when possible. We recently had a series

of reactions at the John Gaston Hospital which were traced to the distilled water. In either type of transfusion the entire procedure should be carried out in an aseptic manner and the blood should be given slowly.

Amount of Blood to be Given

It was formerly thought that the blood volume was 1/13 of the body weight. Recent investigation has shown that it is nearer 1/20. Too much blood or fluid should not be given because of too rapidly increasing the blood volume. Our maximum limit is 15 c.c. per pound. We seldom give over 10.

Routes by which Blood can be given

There are a number of routes by which blood can be given to the recipient.

1. Intramuscularly, this is generally used to prevent bleeding and for purpose of immunization.
2. Intraperitoneally, has been recommended but is not being used much at the present time. At one time we used this method but in three distinct instances blood was found several days after intraperitoneal transfusion unchanged in the peritoneal cavity at postmortem.

Other Tests Essential in Transfusion

1. A serological test for syphilis in all instances except with the immediate parents and even then in older children where there has been an opportunity for infection of the parents since the birth of the child.
2. In this country, malaria examination. We have had several instances of malarial infection following transfusion. In one case where blood was given to an anemic, malnourished child there was improvement following transfusion characterized by gain in weight and improvement in the appetite. One week later the child was returned to the hospital with high fever, cyanotic, and dehydrated. The blood showed estivo-autumnal malaria, which resulted in death. This infection occurred even though the blood of the donor was carefully examined prior to the transfusion.
3. When is tying and matching unnecessary?
   (a). When the blood is given intraperitioneally or intramuscularly.
   (b). When human convalescent serum is given intravenously.

Resume

In 1936, in the two hospitals, there were 412 transfusions given to 252 patients; all were children. There were 270 by the indirect method, 109 by the direct method, and 33 immuno-transfusions. There were a few severe reactions characterized by chill or fever. There was one death at the John Gaston Hospital.

There are numerous diagnoses given as reasons for these transfusions: the chief ones being: prematurity, immaturity, malnutrition, nutritional anemia, athrepsia, marasmus, and decomposition, hemorrhage and shock, alimentary intoxication, infection and blood dyscrasias.

In the immuno-trasfusions:

Scarlet fever	6
Whooping Cough	2
Diphtheria	2
Meningitis	4
Anterior Poliomyelitis	33

My own experience with poliomyelitis consisted in one case in a ten-year-old child where an immuno-transfusion of 400 c.c. of blood was given from the father who had the disease six years previously and was still limping as the result. When this transfusion was given the only symptoms present were those of a slightly over-excited child presenting the signs of an acute infection. There was no evidence of paralysis. Transfusion had no effect on the course of the disease; the child dying thirty-six hours later from bulbar paralysis.

Our experience has been expressed very much in the words of Dr. Carl H. Laws at a round table discussion on Poliomyelitis at the meeting of the American Academy of Pediatrics in New York in June 1935; he stated "notwithstanding the total failure of statistical presentations clinical observations almost universally made of symptomatic response to the administration of serum, can not be totally disregarded, especially since other forms of therapy have been a signal failure."

For this reason we recommend convalescent serum to be given to the exposed child for prevention. We further use large amounts of convalescent serum and also immuno-transfusion and believe it may be occasionally of benefit when given in the early stage of the disease.

We have one interesting experience of whooping cough. A mother developed whooping cough in the eighth month of pregnancy. This was verified by plate and blood examination. One week after inception of disease she suddenly developed eclampsia, and was delivered of a premature infant, weighting three pounds, eight ounces. Immune blood was obtained from the child's cousin who was in the seventh week of whooping cough. Ten c.c. of immune serum were given to the infant intramuscularly.

Two weeks later a second 10 c.c. were given. While the child was not nursed by the mother on account of the eclampsia, there was further contact. The child did not develop whooping cough. Whether this was due to the serum, or the fact that the child was partially isolated can not be stated, but undoubtedly in other cases I have seen whooping cough prevented by the use of immune serum.

Summary

1. The use of blood is one of the most important and valuable therapeutic procedures where the proper indications are present.
2. Convalescent serum is of value in both the prevention and the treatment of several diseases.
3. Immuno-transfusion will occasionally result in a remarkable improvement.
4. Human serum may be given intravenously, also whole blood, intramuscularly and intraperitoneally without matching or typing.
5. Whole or citrated blood given intravenously must be cross-matched and preferably cross-matched and typed.
6. One should familiarize himself with the complications, the contraindications, especially that blood should never be given to a dehydrated child.
7. Blood is not a "cure-all." Its usage can be both harmful and valueless.
8. In closing, perhaps the tendency at the present time is to use parenteral fluids, including blood, too frequently without indications. Where fluid loss can be maintained by means of alimentary tract, it should be remembered that this is the natural method and more valuable than all others and should be thoroughly tried first.

University of Tennessee,
Department of Pediatricts,
Memphis, Tenn.

BIBLIOGRAPHY

1. Marriott, Dr. McK. and Hartmann, Dr. A. F., J. A. M. A. 103:1349, November 3, 1934.
2. Strong, Dr. Robert A., The Mississippi Doctor, Sept. 1936, Vol. 14.
3. Laws, Dr. Carl H.: Jour. Ped. Vol. 7, August, 1935, 277-278.

The Treatment of Early Syphilis by the General Practitioner*

SEALE HARRIS, JR., M.D.
BIRMINGHAM, ALABAMA

The control of syphilis is one of the most important problems of the medical profession in the United States. It has been estimated by various statistics that from 5 to 10 percent of the population of this country has this disease and that its incidence is increasing. The prevalence of syphilis in the United States is due partly to lack of education of the laity regarding the disease and partly to the fact that until comparatively recently the medical profession has not been informed on the proper treatment of the disease. Too much attention has been paid to the patient's prompt relief from symptoms by the treatment of early syphilis and to the serological reaction. Exhaustive studies of the results of the various forms of treatment for early syphilis have shown the treachery of accepting these responses as criteria of "cure" of the disease.

The United States Public Health Service under the direction of Surgeon General Thomas Parran, Jr. has instituted a publicity campaign for the education of the laity regarding syphilis. There can be no question as to the wisdom of this campaign. The education of the public on cancer, typhoid fever, malaria, tuberculosis, diphtheria and other diseases has been a most important factor in the reduction of their incidence. There is no doubt that the laity is becoming "syphilis-conscious" as a result of the publicity that syphilis is receiving and this has its reflection upon the medical profession in that patients now realize the seriousness of the infection and demand proper treatment.

The burden of the management of patients with early syphilis falls upon the general practitioner. The patient who becomes infected would naturally prefer to consult his family physician and should do so. The general practitioner is amply qualified to treat the disease and will be able to secure the confidence and cooperation of the patient more easily than would a specialist to whom the patient might be referred. The realization of the seriousness of the disease and of the length of time necessary for adequate treatment will be much more acceptable from the physician who has treated the patient and his family for other illnesses than from a stranger.

In the treatment of early syphilis there are certain aims which the physician desires to achieve. The first, of course, is the cure of the patient, the second is the prevention of the spread of the disease and the third is that the patient be treated in such a way that he will not be harmed by the treatment. The treatment of any disease affecting any patient calls for individualization. Syphilis is no exception to this principle. Fortunately, however, patients with early syphilis are usually adaptable to standardization of treatment. The plan of treatment for early syphilis outlined by Moore and Keidel[1] was probably the first satisfactory plan that has been evolved. Recently the United States Public Health Service with the aid of the Cooperative Clinical Group‡[2] has modified this plan and has advised the adoption of this modification as the "standard treatment procedure in early syphilis." This group of men includes the leading syphiologists of this country. They are in charge of the syphilis clinics of the University of Pennsylvania, Western Reserve University, the Johns Hopkins University, the Mayo Clinic and the University of Michigan. This group in conjunction with the United States Public Health Service (particularly Thomas Parran, Jr., M.D., R. A. Vonderlehr, M.D., and Lida

---

*The term "early syphilis" signifies an infection of four years or less.

‡John H. Stokes, M.D., Howard N. Cole, M.D., Joseph Earle Moore, M.D., Paul A. O'Leary, M.D., Udo J. Wilde, M.D.

J. Usilton, M.A.) has suggested a standard plan of treatment for early syphilis. The experience of these observers is ample justification for accepting their plan.

PLAN OF TREATMENT FOR EARLY SYPHILIS

Day or Week	Neoarsphenamine	Interim treatment	Blood Wassermann reaction	Remarks
Day				
1	0.3—0.6	....	1	
5	.3—0.6	....		
10	.3—0.6	....		
Week				
3	0.6—0.9			
4	0.6—0.9			
5	0.6—0.9			
6	0.6—0.9			
7	0.6—0.9	....	1	
8		Bismuth, 4 doses, 0.2 gram and K. I.		
9				
10				
11				
12	0.6—0.9	....	1	
13	0.6—0.9	....	1	
14	0.6—0.9	....		
15	0.6—0.9			
16	0.6—0.9			
17	0.6—0.9	....	1	
18-23	....	Bismuth, 6 doses, and K. I.		
24	0.6—0.9			
25	0.6—0.9			
26	0.6—0.9			
27	0.6—0.9			
28	0.6—0.9			
29	0.6—0.9			
30-37	....	Bismuth, 8 doses, and K. I.		
38	0.6—0.9		1	
39	0.6—0.9			
40	0.6—0.9			
41	0.6—0.9			
42	0.6—0.9			
43	0.6—0.9	....	1	
44-53	....	Bismuth, 10 doses, and K. I.		
54	0.6—0.9	....	1	
55	0.6—0.9	....		The average seropositive primary or early secondary patient should have at least 5 courses of neoarsphenamine
56	0.6—0.9			
57	0.6—0.9			
58	0.6—0.9			
59	0.6—0.9	....	1	
60-69	....	Bismuth, 10 doses, and K. I.	....	It is safer to finish treatment with bismuth rather than with arsphenamine. Blood Wasserman every month if possible, at least every other month.
70-122	Probation	No treatment	6—12	
123	Complete physical and neurologic examination, spinal puncture, and, if possible, fluroscopic examination of cardiovascular stripe. Thereafter, yearly examinations. blood Wassermanns every 6-12 months.			

In the plan of treatment for early syphilis suggested by the above named group arsphenamine is advised. There is no doubt that, in the last analysis, arsphenamine is superior to the other arsenicals in the treatment of this stage of syphilis. The difficulties of the preparation of arsphenamine and the very near approximation of the therapeutic value of neoarsphenamine to arsphenamine make the use of neoarsphenamine justifiable. This plan also advises the use of bismuth instead of mercury. There is no doubt that bismuth is superior to mercury. It is not only better tolerated by the patient but is also more efficient in the treatment of the disease. Many different forms of bismuth are being marketed and manufacturers make various claims for their products. Bismuth salicylate in oil, however, is the most satisfactory form of this drug. The proper administration of this form of bismuth causes less pain and gives better results than any other form, regardless of the claims of detail men and advertising matter. During eight years of work in the syphilis clinic of Vanderbilt University, the writer had the opportunity of observing hundreds of patients receiving anti-syphilitic therapy. He is convinced of the superiority of bismuth salicylate in oil over all other forms of heavy metals.

It will be noticed that the plan of treatment suggests the use of potassium iodide. There are very few cases of syphilis in which the use of this drug is not indicated. These exceptions are mainly cases in which tuberculosis or thyroid disease is present or suspected. Potassium iodide is usually well tolerated by patients with early syphilis. There is no reason why it should not be given in full dosage from the beginning of its administration. Twenty-five drops of the saturated solution of this drug, in a large glass of water, three times daily is the most satisfactory dosage. This amount may be diminished if the patient does not tolerate the drug. Of course, in some patients the drug is not tolerated at all and its use must be discontinued.

If the spinal fluid examination above is negative, this need not be repeated.

Preparation and Administration of Neoarsphenamine

No improvement in the method of preparation and administration of neoarsphenamine has been offered to those given by Moore.[3]

The administration of neoarsphenamine is much simpler than that of arsphenamine. Neoarsphenamine is readily soluble in a small quantity of water, and need not be alkalinized. It may be given by the syringe method. There is no advantage to the gravity method with this drug.

1. Inspect the ampule; read the label.
2. Prepare only a single dose at one time, or in any case, no more than can be administered within 20 minutes.
3. Place in a small sterile beaker or medicine glass 10-15 cc. of cool sterile freshly distilled water. (Hot water cannot be used; it increases oxidation and toxicity.)
4. Open the ampule and sprinkle the contents on the surface of the water. The drug is readily soluble and will go into solution promptly with no agitation whatever. Shaking the solution or squirting it back and forth from a syringe increases toxicity and should be avoided.
5. The solution should be perfectly clear and transparent; cloudy or flaky solutions must be discarded.
6. The concentration of the solution is less important than with arsphenamine. The United Public Health Service advises a dilution of 10 cc. per 0.1 gm. drug; but much more concentrated solutions are usually employed. In office practice, I use roughly 15-20 cc. water for the average therapeutic dose (0.3—0.9 gm.)
7. Do not add alkali.
8. Filtration is unnecessary.
9. The solution should be injected immediately and in no case longer than 20 minutes after preparation. Standing increases toxicity.
10. The only apparatus necessary is a sterile all glass Luer syringe, 20-30 cc. capacity, with stainless steel needles, 20-24 gauge.
11. The injection must be given slowly, to avoid immediate reactions. Three to six minutes are none too long for a 0.6—0.9 gm. dose.

Technique of Intramuscular Injection

Again Moore's[4] description of this technique is most satisfactory.

"The buttocks are the most suitable muscle masses to utilize in the treatment of syphilis. Intramuscular injections should be given into the upper outer quadrant of the buttock. If given in the upper quadrant, one is likely to strike bone or to deposit the injected material near the roots of the sacral plexus, from which a troublesome sciatica may result. If given in either lower quadrant, there is pain on sitting, and there is more danger of striking the sciatic nerve or large vessels.

"The only apparatus necessary is a 2 cc. Luer all glass syringe and 18 to 20 gauge needles 1.5 to 2.5 inches long, depending on the fatness of the buttock to be injected. These instruments should be sterilized by boiling, not by alcohol. The syringe is filled with the substance to be injected before the needle is attached. If the drug to be injected is in suspension in a thick oil or fat, the syringe should be filled while hot so that the mass may be liquefied.

"The patient lies face down on a long table thoroughly relaxed, and with his feet 'toed in.' After preliminary sterilization of the skin with iodine and alcohol, the operator draws the buttock down with the left hand toward the patient's heel, to fix the tissues. The needle may be inserted separately or attached to the syringe. A separate insertion is preferable, since if a large vessel is accidentally struck, blood will flow from the needle. In either case, however, a deep insertion is made with a short, sharp stroke, the direction of the needle being slightly inward and downward from the vertical.

"Even though no blood appears at the needle hub, aspiration should always be done as soon as the syringe is attached and before any material is injected. The injection of an insoluble salt (especially bismuth) in oil suspension into a vein is always accompanied by distressing symptoms of pulmonary oil embolism and may result fatally. If blood does flow from the needle or is obtained even in the smallest amount on the subsequent aspiration, the needle must be withdrawn and reinserted at least 1 cm. or more from the original puncture.

"As soon as it is apparent that no blood can be aspirated, the injection may be made. The suspension or solution should be followed by the injection of 1 cc. of air to clean the needle and prevent leakage along the needle track. The needle is then rapidly withdrawn, and the site of the injection massaged vigorously for two or three minutes. Alternate buttocks should be used for injection.

"Painful superficial nodules or lumps are usually due to too shallow injection or leakage along the needle track and are best treated by local heat and massage."

There will undoubtedly be some undesirable reactions to any form of treatment which necessitates the use of potentially toxic drugs. Some of these reactions are inevitable and some are preventable. The "Reaction Prevention Principles",[5] advocated by the United States Public Health Service quoted below will greatly aid in the prevention of treatment reactions:

"It is exceedingly difficult to include details within the space of a paragraph on reaction prevention. Only certain general principles are given. The initial physical and urine examinations have been mentioned. In addition, the following items are of moment:

"1. Inquire into the history of idiosyncrasy, allergic tendencies, skin irritability (especially eczema and sebourrhea), focal and intercurrent infection, liver damage, and pregnancy before treatment is begun.

"2 Question the patient before each treatment regarding (a) itching skin or rash; (b) purpura and melena; (c) gastrointestinal reaction; (d) condition of the mouth and teeth.

"3. Examine at least the eyes (jaundice), face (dermatitis), mouth (salivation, bismuth pigment, purpura), flexure of elbows (dermatitis), wrists, and ankles (purpura) before each treatment. Take the temperature.

"4. Make the first dose of any drug not more than half the full dose.

"5. Pull back on syringe pistons: Before intravenous injections to be sure of vein entry, before an intramuscular injection to be certain a deep vessel has not been entered.

"6. Inject intramuscularly into the inner angle of the upper outer quadrant of the buttock, and massage long and well after the injection.

"7. Inject all solutions for intravenous use slowly through a small needle, not faster than 0.1 gm. per minute for neoarsphenamine.

"8. Keep carbohydrate and alcohol low in the diet, and protein and fat high.

"9. Permit only a light meal before and after an arsenical, and prescribe a mild cathartic the morning after.

"10. Make a urine examination weekly.

"11. Give calcium freely."

Conclusions:

1. The responsibility for the control of syphilis lies chiefly with the family physician.

2. The general practitioner is qualified to treat early syphilis.

3. The treatment for early syphilis should be continuous. An interrupted plan of treatment is not satisfactory.

4. Alternating courses of neoarsphenamine and bismuth with potassium iodide by mouth for a minimum period of forty-three weeks in seronegative primary syphilis to 69 weeks in seropositive early syphilis constitute adequate treatment in most cases.

5. No patient should be considered cured until he has been observed for one year after supposedly adequate treatment. This observation must include a negative physical and neurological examination, a negative fluroscopic examination of the heart and aorta, and negative spinal fluid.

BIBLIOGRAPHY

1. Moore, J. E., and Keidel, A., Bulletin Johns Hopkins Hospital, 39, 1, 1926.
2. Venereal Disease Information, xv, 4, April, 1934.
3. Modern Treatment of Syphilis, Moore, J. E., C. C. Thomas, Philadelphia. pg. 147-148.
4. Ibid. pg. 151.
5. Venereal Disease Information xv, 4, April, 1934.

Case Reports Emphasizing Important Points in Diagnosis and Treatment of Common Gynecological and Obstetrical Diseases*

LUCIUS E. BURCH, M.D., F.A.C.S.
Obstetrician and Gynecologist-in-Chief
The Department of Obstetrics and Gynecology Vanderbilt University Hospital
NASHVILLE, TENN.

A CASE OF ECLAMPSIA

A 17-year-old white primigravida was admitted to the hospital in the 7th month of pregnancy. She had been seen in the obstetrical out-patient department at two-week intervals since the 5th month. Her pregnancy had been complicated during the 4th month by a large breast abscess which was incised and drained, and from which she made a rapid and complete recovery. Following this her prenatal course was essentially normal, except for an excessive weight gain.

Four hours before admission to the hospital, patient had had 5 violent convulsions. During these convulsions she chewed her tongue and had involuntary urination and defecation. Her local physician administered ¼ grain morphine at this time.

On admission, the patient was listless, breathed heavily and had slight edema of the feet and ankles. The abdomen was enlarged to the size of an 8-months pregnancy, although her history was of a 7-months pregnancy. Her tongue was swollen and contused. Physical examination was otherwise negative. Temperature was 98.6°, pulse-rate 90, and blood pressure 140/114. Urine showed 1 plus albumin but no casts. She had 15 grams hemoglobin, 4,500,000 red blood cells and 21,000 white blood cells. N.P.N. 28.5. CO_2 44.7. Uric acid 4.8. Serum protein 7.31.

Management

Patient was given 4 grains of sodium luminal upon admission and then 2 grains of sodium luminal every 4 hours. Contrary to the usual postconvulsive state, the patient was able to take nourishment and was therefore put on a liquid, salt-free, high-carbohydrate diet, with fluids limited to 2,000 cc. in 24 hours. Five hundred cubic centimeters of 20% glucose was given intravenously twice daily. The urinary output rapidly improved and the blood pressure fell.

Two days after admission a sterile vaginal examination revealed that the fetus was in normal position, with the vertex well into the pelvis, and the cervix effaced and two fingers dilated. It was therefore decided that, if the membranes were ruptured artificially, patient would easily go into labor. This procedure was carried out and labor began one hour later. The patient was delivered in 6 hours and 35 minutes, with episiotomy and low forceps. She had a moderate, immediate postpartum hemorrhage, which was controlled by oxytocics.

Following delivery, urinary output increased markedly and the blood pressure steadily approached normal. The patient was discharged on the 17th day, with a blood pressure of 120/80. The urine was negative for albumin.

Discussion

In view of the fact that this patient had only a moderately high blood pressure, slight albuminuria, and had had convulsions which stopped after the administration of morphine, and because her condition upon admission was evidently not critical, the conservative management was chosen.

In the presence of convulsions, where the physical condition of the patient (as evidenced by the blood pressure, moderate albuminuria, the increasing urinary output and return to consciousness) is good, radical procedures such as Cesarean section should be considered only remotely. In the Vanderbilt Hospital, even in the more extreme cases, Cesarean section is not considered a proper method of management of toxemias of pregnancy.

---

*Read before the Central Medical Society, Jackson, Miss., March 2, 1937.

In the last 6 years there have been 244 cases of toxemia of pregnancy in Vanderbilt Hospital, with 33 cases of eclampsia and only 7 deaths. There have been two Cesarean sections, and both cases terminated fatally following section. We are therefore strongly in favor of conservative management of toxemias of pregnancy, including eclampsia.

A CASE OF ECTOPIC PREGNANCY

A 19-year-old colored woman, para II, was admitted to the Vanderbilt University Hospital on 8-6-34 with a history of intermittent pain and bleeding of one month's duration. Her menstrual periods had always been regular, 28-day-interval, until June, during which month she failed to menstruate (L.M.P. 5-2-34. One week after period was due, she began bleeding; this lasted for 4 days. Four days later she bled again and had severe cramps across the lower abdomen. The pain was described as very intense, beginning in the center of the abdomen and radiating down the right thigh. She was forced to go to bed several times and upon rising flowed very freely; on one occasion she noticed liver-like particles mixed with the clots. Along with the intermittent attacks of pain and bleeding, the patient had noticed a pain in the right shoulder region. In the last week or so patient had had severe pain upon defecation.

The past history was irrelevant.

Pelvic examination revealed uterus pushed to the left by a large mass on the right; this mass was exquisitely tender, lay in the right fornix and bulged into the cul-de-sac.

Laboratory findings: Urinalysis showed 1 plus albumin with occasional white blood cells and red blood cells. There were 3,500,000 red blood cells and 14,000 white blood cells. Hemoglobin 12 grams. Sedimentation time 15 minutes.

The diagnosis seemed to lie between: (1) a chronic pelvic inflammatory disease, (2) an ovarian cyst with a twisted pedicle, and (3) an ectopic pregnancy. Ectopic pregnancy seemed indicated as the proper diagnosis by the following: the missed period with history of previous irregularity, the character of the pain (being intermittent and irregular and seemingly relieved somewhat after onset of bleeding), the passage of liver-like particles, shoulder pain and pain upon defecation. The cul-de-sac of Douglas was aspirated and blood was obtained. This more or less clinched the diagnosis.

A laparotomy was done immediately. The peritoneum was bluish in color and, upon opening the abdominal cavity, there was a moderate amount of free and clotted blood. The right tube and ovary were involved in a bloody mass about 5 cm. in diameter which was lying in the cul-de-sac and contained an ectopic pregnancy with tubal abortion. The uterus lay anterior to this mass. The right tube and ovary were removed and the raw surfaces peritonealized.

The patient made an uneventful recovery.

A CASE OF PLACENTA PRAEVIA

A colored female, age 28, gravida III, para II, entered Vanderbilt Hospital on 12-24-36. She was admitted from the obstetrical out-patient department because of an elevation in blood pressure, which was 140/94. Two weeks previously, it had been 118/78.

Patient's pregnancy up to the time of admission was more or less uneventful; she had had some nausea and vomiting in the first trimester; constipation was marked in the second trimester and continued into the third. There was some edema of the feet and ankles during the last two months which became very marked a week before admission. The patient had gained 46 pounds. Urine was persistently negative for albumin; Wassermann was negative. Pelvis was ample. Previous to admission there were increasing headaches, general malaise and blurring vision. Patient had a very poor appetite and her diet consisted of practically no proteins. There was no history of vaginal bleeding.

Eleven hours after admission patient awakened suddenly from a profuse uterine bleeding. The nurse was called immediately and, by the time the house officer had arrived, the patient was lying in a pool of blood and the blood was running off onto the floor. The hemorrhage was estimated to be 1,000 c.c. The patient was taken immediately to the delivery room and, just after her arrival there, bled again profusely with the passage of very large clots. Her blood pressure at this time was 90/70. No vaginal or rectal examination was done because of the danger of renewed hemorrhage.

In attempting to institute the proper treatment in this dire emergency, the following complications of pregnancy were to be considered: (1) Erosion of the cervix, (2) Ruptured vaginal varicosities, (3) Abruptio placentae, (4) Carcinoma of the cervix, (5) Rupture of the uterus and (6) Placenta praevia.

The hemorrhage was too sudden and too profuse for erosion of the cervix to be considered an etiological factor. Ruptured varicosities could be ruled out on the same basis, in addition to the fact that previous examination had not revealed vaginal varicosities. Carcinoma of the cervix was eliminated in like manner. Due to the pre-existing toxemia of pregnancy, abruptic placentae might be considered in this case; however, the hemorrhage being sudden and profuse, with no abdominal pain either previously or at this time, and the abdomen being soft and relaxed, this condition was ruled out. Rupture of the uterus could be ruled out because the sudden hemorrhage was preceded by no signs of distress.

Therefore, all other possible diagnoses being ruled out, we considered placenta praevia. A painless uterine hemorrhage occurring in the third trimester of pregnancy is almost pathognomonic of *placenta praevia*. There were, in addition, all the classical signs and symptoms of placenta praevia.

Manipulation either by rectum or vagina was considered unsafe. Patient's blood pressure continued to fall, and a Cesarean section was considered the only safe procedure. The proper type of section to perform in such cases is debatable. A high classical section is much quicker, easier to perform, and less dangerous from the standpoint of hemorrhage because of the low-lying placenta; but at the same time, it is more dangerous from the standpoint of infection. In a low cervical Cesarean section there is less danger of hemorrhage (unless the placenta is low-lying) and less danger of infection. Therefore, a low cervical Cesarean section was done.

At the beginning of the operation, blood pressure was 80/40. On opening the uterus, the placenta was found immediately beneath the lower part of the incision and hung festoon-like over the lower uterine segment and cervix. A male fetus was delivered which did not breathe (previous fetal heart tones were not heard). During the course of the operation blood pressure dropped to 50/40. At this point intravenous glucose solution was given, followed by 750 cc. citrated blood. Patient returned to her room in shock, where fluid was continued intravenously, followed in the next 12 hours by two transfusions, making a total of 2,000 cc. blood.

For two days following the operation the patient was very edematous and blood pressure was 170/94. The edema was thought to be due to water-logging and a hypoproteinemia from her previous deficient diet. On limitation of fluids and administration of digitalis the edema subsided and the blood pressure returned to a normal level (120/80.)

The patient was seen in the out-patient department six weeks post-operative in good condition.

A CASE OF ADENOCARCINOMA OF BODY OF UTERUS, WITH SUB-MUCOUS POLYP AND SENILE VAGINITIS

A 52-year-old white married woman, para I, was admitted to the Vanderbilt Hospital with chief complaint of menorrhagia. The menses had been perfectly regular until 2½ years previously. Since that time the flow had been irregular, associated with cramping and, at times, with the passage of clots (which the patient attributed to the menopause). All of this had been accompanied by a low backache but the patient had never been incapacitated. There was a vaginal discharge which was not malodorous.

The family history was negative.

The physical examination was of no especial importance, except that it revealed her to be a very large woman, much overweight, with a pendulous abdomen.

The pelvic examination revealed external genitalia negative, vaginal outlet slightly relaxed, and cervix normal in appearance. Uterus was enlarged to twice its normal size but was smooth. There was no palpable enlargement of the appendages. The vagina showed many pin-point hemorrhagic areas characteristic of senile vaginitis.

Discussion

Uterine bleeding is due to one of the five following conditions:

1) Cancer
2) Abortion
3) Fibroid tumor
4) Extra-uterine pregnancy
5) Endocrine disturbance

It is easy to remember these five conditions by recalling the key, which is the word, CAFEE.

From the history of the case, abortion or extra-uterine pregnancy could be easily eliminated. There was a senile vaginitis, but this could not account for the amount of blood which, according to the history, had been passed. A vaginal bleeding in a patient of this age makes one suspicious of cancer. The cervix was perfectly normal. Therefore, if cancer existed at all, it probably was located in the body of the uterus. One had to consider the possibility of a submucous fibroid as the cause of the backache and the colicky pains.

Therefore, in this case three conditions had to be considered: (1) cancer of the body of the uterus, (2) a sub-mucous fibroid of the uterus, and (3) an endocrine disturbance. A biopsy was considered the only means by which the diagnosis could be made clear. The patient was curetted and much material was obtained, which grossly appeared cancerous and on which a microscopic diagnosis of adenocarcinoma was made. An x-ray of the chest, made after the biopsy, showed no signs of metastasis.

The patient was given a preliminary treatment of deep x-ray therapy and sent home, to return a few weeks later for a pan-hysterectomy. On account of the large size of the patient, a vaginal instead of an abdominal hysterectomy was done. Examination of the specimen obtained at operation revealed a small sub-mucous fibroid polyp that was sloughing and a malignancy involving a large part of the fundus. The fibroid explained the colicky pains and part of the discharge; the cancer explained the bleeding.

The patient made an uneventful recovery from the operation. On leaving the hospital, she was placed on haliver oil to clear up the senile vaginitis (Mason and Simpson of Vanderbilt have shown that this condition can be relieved by administration of concentrated vitamin A). Five years after operation there is no sign of recurrence, the senile vaginitis is cleared up, and the patient has enjoyed good health.

This case well illustrates the importance of a close liaison between the laboratory and the surgeon.

Acute Hemorrhagic Nephritis in Children*

By L. B. BRACKSTONE, M.D.
IUKA, MISS.

Acute hemorrhagic nephritis occurs much more in children than in infants or adults. Most cases are undoubtedly of infectious origin although the point of entrance of the infection is sometimes difficult to determine. Acute hemorrhagic nephritis occurs frequently secondary to acute infectious diseases, especially those of the naso-pharynx and the middle ear. The nephritis usually occurs within three weeks after the acute febrile infection.

Because of the frequency, hematuria in children should be considered secondary to a previous acute infection which in many cases is of a streptoccic origin, however, the cause may be due to parasitic infections, more specifically, malaria. The cases of the rare types, as those accompanying subacute, bacterial endocarditis, tuberculosis, syphilis may be differentiated by the diagnosis of the specific disease.

A child with acute hemorrhagic nephritis or, as sometimes called, glomerular nephritis, is one who is often not acutely ill, having a temperature of 100-102 degrees, presents vomiting, visual disturbances, anemia, depending on the amount of blood loss, headache, frequency and urgency of urination. The blood pressure is raised and there is an elevation of non-protein nitrogen and no edema is present.

Acute hemorrhagic nephritis should be differentiated from acute tubular or parenchymatous nephritis, chiefly because of the treatment and the prognosis. The hemorrhagic type is usually caused by a streptococcus and the parenchymatous type of a staphylococcus organism. The former is acute and usually follows tonsillitis, scarlet fever, and influenza and the pathology lies in the glomeruli while the latter is insidious in its onset, usually resulting from a sinusitis, with the tubules chiefly affected. There is more blood in the urine and may be less albumin in the hemorrhagic nephritis than in the parenchymatous type. The non-protein nitrogen and the blood pressure are elevated in the hemorrhagic, and in the parenchymatous these two factors are not affected. There is no edema in the hemorrhagic condition while in the other, edema is present.

In general the more evident and amenable to treatment the accompanying infection, the better the prognosis. The prognosis is influenced by age, the younger the patient the more serious being the condition. The prognosis should be guarded when the causal infection is serious in its nature, when cerebral complications are present, when the N. P. N. is 90 or over and when there is a prolonged anuria. Generally speaking, however, the prognosis is good in acute hemorrhagic nephritis in contradistinction to the parenchymatous nephritis.

The treatment for acute hemorrhagic nephritis is open to much discussion but during a small epidemic which we had not long ago the patients responded satisfactorily. Treatment is both prophylactic and therapeutic. Rest in bed is essential and no drugs should be administered. These would irritate the kidneys or concentrate the output of urine. Medicinally, not many drugs are indicated or necessary. Potassium citrate in small doses, for increasing kidney function, and mild alkaline laxatives for the bowels are the most important. The more common kidney infections in children respond satisfactorily to the mandelic acid treatment, wherein one limits the fluid intake and examines the urine often to make sure that it has the correct acidity. I have used mandelic acids in the forms of syrups and elixirs and have found little benefit from either. This is probably due to the fact that few urines have B. coli predominating. Calcium lactate in doses of 5 grains, three times a day will tend to control and reduce the bleeding. Milk diet is advocated along with fruit juices and carbohydrates. The protein in the diet is important and should not exceed 1.5 gm per kilo body weight per day. After the patient's N. P. N. improves one may give animal protein as these are much easier to handle than the vegetable proteins. Fluid and salt intake should be restricted.

---

*Read before the Northeast Mississippi Thirteen-County Medical Society, Booneville, March 16, 1937.

Acute hemorrhagic nephritis is not a contra-indication to surgery. If during the acute stage of the nephritis, appendicitis, empyema of antrum or mastoiditis develop, we are justified in treating the condition the usual way and disregarding the nephritis. Fortunately, in the majority of children with nephritis, there is a safe measure of kidney reserve and these interferences cause only a little more than a temporary set back.

CASE REPORTS

The following are cases which occured in epidemic form:

1. B. J., white girl, age 6, has spontaneous perforation of both ear drums. Discharge was purulent and copious. Two days later patient's urine didn't look normal to the parents and was sent to the laboratory for examination. The urine was amber color, acid in reaction, specific gravity 1.004, 2 plus albumin, no sugar. Microscopically two to eight blood casts per H. P. F. 15-20 W. B. C. per H. P. F. and loaded with blood. Patient shows a bilateral otitis media—nose, throat, chest, negative—B. P. 130/80—extremities negative. Patient had a bilateral mastoid operation and recovered completely in six weeks.

2. J. S., white girl, age 6, came complaining with pharyngitis and tonsillitis. This condition was treated locally and cleared up in two or three days. Two weeks later she began passing blood from kidneys. Patient was put to bed and on a milk diet and recovered in three weeks.

3. W. L., white boy, age 5, was having a low grade fever and brought to office for examination. Only positive findings was a blood smear showing malaria parasites. The next day hematuria was present. B. P. 124/76. Other findings—negative. Treated for malaria and urinalysis improved to almost normal findings in two weeks.

4. W. M. T., colored girl, age 7, temperature 100.4, pulse 96, height 49½ in., weight 52 pounds. Gave a history of having tonsillitis three weeks ago but not severe enough to require her to remain in bed. Urine showed the following: Specific 1.012, acid reaction, albumin 1 plus, no sugar. R. B. C. innumerable, white blood cells and cast, occasionally, and few bacteria. Red blood count showed some anemia and malaria smear was negative. Throat showed chronic tonsillitis and there was some slight edema under both eyes. At the present time patient is being treated as outlined above and is responding satisfactorily. Tonsillectomy will be advised when the patient recovers assuming the convalescence is normal and the operation will be advised prior to that time if the patient does not continue to improve rapidly, in spite of the urinary findings.

SUMMARY

1. Acute hemorrhagic nephritis is common in children and is usually streptococcic in origin but may be due to malaria.

2. The diagnosis is important because of the type treatment necessary and also because it enables one to give a better prognosis.

3. Treatment should consist of removing the cause, if possible, after which the treatment should be diet which is one of low protein value, minimum salt intake, liberal calorie value and free amounts of carbohydrates and fats.

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor and Mgr.
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Postgraduate Medical Assembly

Mid-South Post Graduate Medical Assembly
Editors:

E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dewell Gann, Jr., M.D.

Mississippi State Medical Association

W. L. Little .... President
Joe E. Green .... President-Elect

Editors:

Leon S. Lippincott, M.D. D. W. Jones, M.D.
G. S. Bryan, M.D.

Councilors

J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J. Gould Gardner, M.D.
Thomas J. Brown, M.D. W. H. Frizell, M.D.
D. J. Williams, M. D.

Published monthly at Booneville, Mississippi.

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act of March 3, 1870.

The Mississippi Doctor is very grateful to the Mississippi State Medical Association for a renewal contract as the official organ of the association.

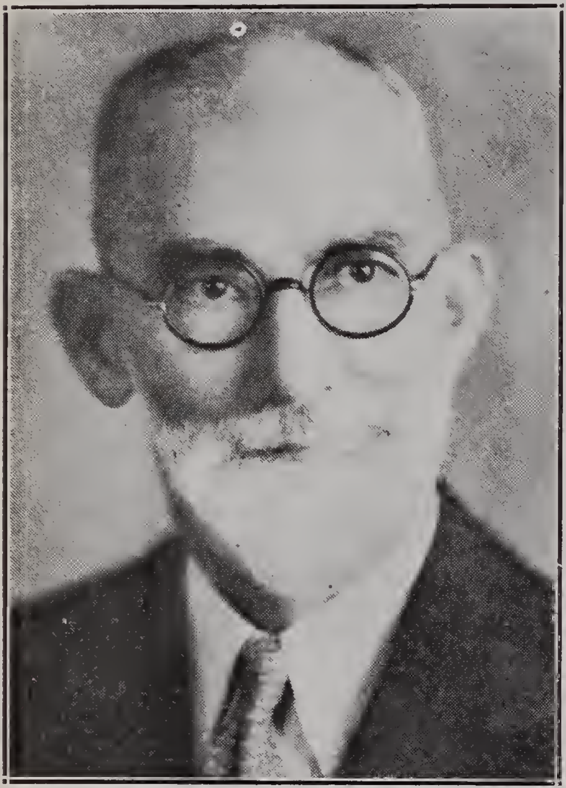
Our state meeting at Meridian was unusual in many respects. The attendance was increased about one hundred. Several factors entered into this no doubt. One of the strongest was our able and active president, Dr. Harvey F. Garrison. No grass grew under his feet while he was president. He visited many societies over the state and his appeal was to practitioner and specialist alike. Putting his hand to the plow, he did not look back. His heart was in the performance of the duty. He demonstrated his ability in securing cooperation from others. He saw that we had a fine program. The post-graduate course in pediatrics was an outstanding treat to the profession of the state. He had the cooperative hand of the president-elect, Dr. W. L. Little.

The city of Meridian, with joy and pleasure, did its part in a big way. The Meridian Star, with its able editor, put his shoulder to the wheel. The business men gave of their means. The hotels were active and most cordial. We do not know that we have before seen such cordiality, such wonderful service on the part of hotels. Bill Mobley, Mr. Brown, and Nat Washburn were among the boys who did not leave one thing undone to make the stay of the doctors pleasant and profitable. And we wish to thank Bill Mobley, of the Lamar, for the nice things he said about the doctors. He remarked that the hotel people, like the doctors, would anticipate with pleasure their return because they were considerate of the hotels, kept things in order and did no damage as is some times the case with conventions. The ladies of the city were gracious in their entertainment. The medical profession to a man in that city, in that society, seems to have had one thing only in mind: the pleasure of their visiting fellows. Councilor Lowrey Rush, cultured, refined, and scholarly, did his part in a big way. Drs. Hoye and Hickman were on the ground with their pleasant faces. And for a big quarter of the credit we must not forget Dr. I. W. Cooper who gave of his time before and after the convention. His heart is big, his hand is cordial, he loves to do things for others. The association could not expect more from any city than was accorded by Meridian. And next year we go to Jackson, the city of conventions.

We are very grateful to Doctor Seale Harris, Sr., for the nice things he said about *The Mississippi Doctor* at the state meeting.

The exhibitors at our state meeting should be given more consideration in our opinion. They are co-workers with us or should be. It is very educational to have them with us. The state association should have the exhibits in charge, have one man to look after them, see to the space, write the exhibitors, etc. Give him a commission to handle the proposition from one year to the next. Funds for financing the meeting could be multiplied three or four times in this way, the attendance can be increased through the help of the exhibitors, and the medical profession can be greatly benefited in an educational way and as a matter of convenience. There is no use staying in a rut forever just because you get in. Study the growth and development of the Mid-South a little and be convinced that the exhibitors can play an important part.

NEW PRESIDENT



Dr. W. L. Little, of Wesson, President of the Mississippi State Medical Association. Doctor Little is one of the fine types of the general practitioner. He has been a leader in organized medicine in Mississippi for many years. His ideals are high and his judgment is good. To him no one thing is common or of small importance in the practice of medicine. He believes in brotherly cooperation on the part of the members of the association. He puts a high estimate of the value of character in the individual practitioner. He believes that the medical profession has a serious duty to perform toward the public; he also has a high estimate of the opportunity the profession has at this time and the satisfaction that may come to it as a result of service well-performed. Dr. Little has been active as president-elect. At the close of his term we believe that the profession will be stronger in the fundamentals of this high calling, that it will have a greater sense of duty to the public, a clearer vision of its opportunities, and a more dogged determination to carry on more efficiently.

Dr. Joe Green of Laurel is the president-elect of the Mississippi State Medical Association, having been elected at the annual meeting which was held in Meridian May 12-13-14. He saw the light of day first in Perry county, March 12, 1885, the son of Samuel I. Green and Katherine Fairley. He attended the public schools of his native county and then graduated from Poplarville High School in 1905, and from Tulane University in 1909.

He has served both Green and Perry counties as health officer, a past president of the South Mississippi Medical Society, and served on the Council of the Mississippi State Medical Association from 1931 to 1937.

He is a member of the Baptist Church and has served as superintendent of the Sunday school, and as deacon. He is past president of the Rotary Club in which he still holds membership. He is a member of the Laurel Chamber of Commerce; Past Grand Master of the Mississippi Masons. He has been very active in The Southern Pediatric Seminar in North Carolina having attended seven sessions. He also took four months post-graduate course at Tulane in pediatrics and obstetrics.

In his practice Dr. Green has been giving special attention to pediatrics and obstetrics for a number of years. On these subjects he is keeping well informed. He has stood in the front ranks in organized medicine all along the way. When duty called he responded to the best of his ability. And never for one minute has he forgotten his duty as a citizen in his town. He has been ready to do his part in every good cause. He is a fluent talker. He will be found helping our splendid president, Dr. W. L. Little, and he will do his duty well a year hence.

Congratulations to our esteemed friend, Dr. George C. Williamson, of Columbia, Tenn., on his election as President of the State

Medical Association of Tennessee. The presidency is the highest honor in the gift of the state association. When it elected Dr. Williamson, the honor was worthily bestowed. A more clever man we have yet to meet. Personality is the greatest human power perhaps. True personality is made up of divine elements. The man with personality thinks of others, he does things for others that help them in time of need, that inspire them to greater effort, that bring more joy and greater happiness to them. There is no product in the world today in such demand as human personality. Dr. George C. Williamson has a double portion. He is courtly and broadly educated. He will make a fine president.

At our state meeting at Meridian, Dr. R. E. Eley, of Pascagoula, read a most interesting paper on "Rural Obstetrics," in which he reported about three thousand cases. His results with this large number were most remarkable. His record would really be hard to surpass in the most modern hospitals. One of the outstanding principles in his practice as we observed from his discussion, was "not to be too quick to interfere," look after the mother as best you can before delivery and then be patient and give her time to deliver. This paper was most interestingly discussed by Drs. Banks, of Philadelphia, and and Simmons, of Bay Springs. They both reported a large number of cases with splendid results from conservative treatment. Dr. Banks is said to be the country member of the State Board of Health. We will venture a bit further and say that in addition to being a good country obstetrician, he is the country orator of the State Medical Association. Dr. Lapham concluded the discussion giving due credit to the fine work these men have done and urging the importance of keeping more accurate records of these cases so that we may know more positively the status of country obstetrics. This paper and these discussions make us feel that we have not done so bady in this field of practice and it causes us to glimpse a brighter outlook for the future. Dr. Lapham is trained to the last minute in this specialty, he has poise and practical application. He has been going over the state and lecturing to these noble country obstetricians. Hence practical experience with a heart of service is joining hands with the broadly educated and thoroughly trained specialist and the result must be that the mothers of our state are to have better service in the future than in the past.

Five hundred doctors in Mississippi would do well to employ a registered nurse regularly. Think it through and see it for yourself. The way to keep out of state medicine is to give the people the service, make them like and teach them to pay for it. The well trained nurse can be a wonderful thing in so doing.

The state-wide control of rabies is one of our greatest problems. E. S. Brasier, D.V.M., of Jackson, read a good paper before the state meeting on this subject. It created much interest and was liberally discussed.

Hospital insurance may not cure as many evils as some think, but at any rate it is fitting that it be tried out under the direction of both the hospital and medical associations, as we see it.

You will read with pleasure and profit the paper by Dr. Seale Harris, Jr., on the standard treatment of early syphilis. We deeply appreciate this favor from Dr. Harris.

Note the program of the Northeast Mississippi 13 County Society. It is good and then you know it is always good to go to Houston. They know how to entertain.

Of course we are a little partial to Houston and Baptist Hospital, of Jackson. They gratefully help us with some advertising.

Read the list of contributors to *The Mississippi Doctor* in 1936 and make note of the scope covered by same.

New Orleans is the meeting place of the Southern Medical next fall. Mississippi should turn out in big numbers.

Read all the papers in this issue.

The Meridian meeting is past history. It was in many ways a great meeting. The attendance was unusually full. There was about thirty-three per cent increase over recent meetings. Altho Meridian is near the eastern border of the state, the attendance was from all sections. The program carried a list of men who have achieved fame and are noted as teachers in their respective fields of labor and special lines. In fact, there was, perhaps, too large a number of out-of-state men. This fact crowded some of our men from their rightful share of the spotlight. One distinguished essayist gallantly refused to consume the full time allotted him and simply sketched his subject briefly saying it would, no doubt, soon appear in the columns of the association journal, when all who were interested might read it. Among the distinguished visiting essayists were: Dr. Temerer of Chicago, who is one of the nation's leading pediatrists; Dr. Alvarez of The Mayo Clinic, who is a most forceful speaker as well as authority in his line of work, was there. All who heard him must have profited largely. He taught by case reports. But for the fact that all his case reports demonstrated his skill, both in diagnosis and treatment, and the *errors* and *mistakes* of other men, his lecture would have been entitled to first place. Dr. Seale Harris, Sr., whom we have long ago taken into our arms and hearts was there and, in conjunction with Dr. Seale Harris, Jr., discussed some fundamental principles. Of course some of the best papers were presented by our men and members. One matter of far reaching interest and importance that came before the house of delegates was the matter of "Hospital Insurance." It seems that a plan to put this scheme into force has been worked out in the Hospital Association. The plan that has been suggested is closely allied to the "Dallas" plan and is not so objectionable as many other plans that have been suggested. But in my thinking *any* plan of which I know anything is far from perfect or even desirable when looked at from all angles. There are three distinct interests to be considered, in my thinking. First, that of the hospitals. Hospitals are necessary for modern and scientific care of many cases of sickness and surgery. No one is surer of this than am I. I have long advocated the establishment of small hospitals and in many different localities. I think the small hospital is the answer to most of the perplexing questions that confront the rural doctor and patient. If these hospitals are to function and serve their purpose, beds must be filled and bills for same must be paid. This hospital insurance scheme probably meets this phase of the question, almost perfectly. And I do not find fault with the stockholders and owners of these institutions for seeking to establish a plan that provides for the proper support of them. Then we must think of the interest of the public as a whole; for any plan that does not take into consideration the public interest is fallacious and reprehensible. For one, I can not see that this proposed insurance plan does meet the best interest of the greatest number of our people. It is, no doubt, true that a sufficient number of the people will buy this insurance to keep most of the beds in these various hospitals full and thus they will not face the possibility of failure and bankruptcy. But it is an indisputable fact that those who will buy this insurance constitute the group of citizens who can afford to pay hospital expense when it is necessary that they go to hospitals. It is further true that many of this group do not *need* hospitalization, since they have in their homes all necessary comforts and conveniences. In fact in such homes sick people do better than if they should go to any hospital, I car not how well it may be run or administered. Again we must face the sad fact that those who do not have the comforts and necessities in their homes *can not* and will not carry insurance, and this group constitutes the great mass of our population. If this group could be given insurance, the hospitals would be over-crowded and new hospitals would have to be built and more beds provided in those already established. Then it would be that the hospital interests as well as the public interests would be served. I will return to this point when I shall have considered the third, last, but by no means the least important interest to be considered. I now refer to the interest of the country doctor—the family doctor—the most important and strongest limb of the professional tree. These men bear the real brunt of the public need for skill and service. Yet they are, almost without exception, underpaid and can scarcely keep going. When smooth insurance salesmen go out into the rural district (as they will do), they will not waste time with the indigent or near indigent, but will canvass and sell the only people who can pay these country doctors for their service. These insured people, having paid their premiums, will demand hospitalization and in order to get it they will leave their family physicians—the only men who are competent to treat them as they deserve to be treated. They will go to hospitals and will fall into hands of aliens and strangers. This is not best—it is not fair—it is not right. If this insurance should be available for surgical cases, alone, it would be different. For God's sake let us not destroy our country doctors and at the same time rob his clientele of their right to his skill and service. Now let us go back to the group of indigents—the great majority of our population. How may this interest be served best and at the same time serve the hospital interest as well? Simply by demanding sufficient appropriations to give them, the ones that actually need hospitalization, adequate hospital care. The wedge has been entered, but the log has not even been cracked. Fifteen cents per capita is ridiculously small. Let us, as an organized body of men, get behind a demand for dollars instead of measly cents. If and when we do we shall be able to put the idea through and the needy (God's own) will be given a chance to live rather than die as dogs and outcasts. The hospitals will thrive and prosper. Those who are able to pay and should pay will be forced to do so and will thus save their self-respect. The sacred relation between patient and physician will be preserved. The country doctor will be shown the respect and consideration that he so richly deserves. The body of men who have taken the holy responsibility of physicians can look their God and the world in the face and can feel that they have served the best interest of the rich and the poor. Doctors, friends, stop, look and listen, think and act before it is too late.

G. S. B.

TO THE MEMBERS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

The annual meeting of the Mississippi State Medical Association for 1937 has come and gone!

The meeting necessarily speaks for itself. I may say however, that I have received many very kind expressions relative to this meeting. Many letters of praise and appreciation for my feeble efforts toward the success of this meeting have been received. I am truly grateful for all the words spoken and the many letters. I assure you that my heart is full of gratitude for all those and for the honor, privilege and pleasure of having served as your President.

I desire to extend to every officer and to each member of the Association, my sincere appreciation and heartful of love and thanks for your most loyal cooperation during my administration, for without such loyalty and cooperation, my humble efforts would have been in vain.

Allow me to urge you to join me in giving to the new administration and to Doctor Little, president, and Dr. Joe Green, president-elect, personally, our full cooperation. I, here and now, pledge and dedicate any services that I may be able to render, at any time and in any way they may desire, and to you my fellow practitioners and members of the most noble profession on earth, permit me to say, that when I can serve you in any way, please feel free to call on me.

Again thanking you for the privilege and honor of serving you, I am,

Gratefully yours,
Harvey F. Garrison, Past President, Mississippi State Medical Association.

LETTERS TO THE EDITOR

My Dear Doctor Anderson:

The 1936-37 administration of the Mississippi State Medical Association and the annual meeting of same at Meridian, Miss., in May, 11th-13th, 1937, closed the last chapter of an administration for which I was for the first time being at least, the responsible head.

I cannot permit the pages of this bit of history to close without giving due credit to the official organ of our Association, *The Mississippi Doctor*.

There are so many advantages in having an official organ, owned and operated by our state talent. Your experience with newspaper work and your loyalty to the medical profession of this state is most valuable to the Mississippi State Medical Association. As I have traveled over the state, visiting the doctors and the medical societies, I have heard many compliments of your work for the profession of this state. I know that the members of the Mississippi State Medical Association truly appreciate your services. Your most loyal cooperation with me during my administration was of the greatest value to me and to our noble profession. May I hope and know that you will give to Doctors Little and Green the same loyalty that you gave me.

When and if I can serve you or the *Mississippi Doctor,* command me.

With every good wish, I am,

Sincerely yours,
Harvey F. Garrison,
Past President, Mississippi State Medical Association.

Thank you very graciously, Doctor Garrison.—Ed.

Dear Doctor Anderson:

Enclosed is my check for one dollar, for which you will please renew my subscription to *The Mississippi Doctor,* which I have been receiving regularly and enjoying immensely. Again, I take the opportunity to congratulate you upon the fine work that you have done and are doing for the medical profession of Mississippi.

On July 1st, my second year as interne at Charity will be a thing of the past, and I shall begin my residency in gynecology and obstetrics here. That means that I shall be at "Ole Charity" for another two years. Working with and for Drs. Hilliard Miller and E. L. King and their staffs will be most enjoyable and invaluable; consequently, I am looking forward to the future with keen anticipation.

With cordial regards, I remain

Sincerely yours,
Woodard D. Beacham, M.D.

Thank you, Woodard, for this fine letter. When you find one of those Beacham brothers, you see a man with his face forward and his chin up and his hands climbing the ladder of service. Their father loved the service. Their mother is the salt of the earth and she is their constant inspiration. Ed.

Dear Doctor:

Permit me to extend through your journal, or I should say our journal, my thanks to the physicians of Mississippi for honoring me at our meeting in Meridian by electing me president-elect of the state medical association.

I am sure that I feel just about like those who have gone before me in assuming this responsibility—*I am not worthy of this honor.* If I understand the duties of president-elect are not so many but I will be expected to cooperate with Doctor Little, our president, in making our 1938 meeting a success, this I promise to do. I will also work with the three vice-presidents in trying to increase our membership in every county in the state but if this is done successfully it will require the efforts of every member of our association and as president-elect please let me extend to you an urgent request to get busy with the friends who are your co-workers and who are not members of the association and persuade them to join us.

I do not want to be misunderstood and say that we want every physician in Mississippi as a member because there are some who possibly are not worthy of this honor but if the physicians of any community say a man is all right that makes him all right in my mind.

In conclusion permit me to say that my efforts will be for all the physicians in Mississippi and not for any special class.

Humbly and sincerely yours,
Joe E. Green, President-Elect.

CORRECTION

In reviewing Proctology by Yeomans, published by D. Appleton, Century Company, we made the mistake of saying the price was ten, when it should have been twelve dollars. We regret the mistake. When you consider this most unusual book, two dollars added still leaves the price very reasonable. This is a book that will render fine service in the office of both practitioner and surgeon.

DR. BAUGH OPENS CLINIC

Dr. Douglas D. Baugh, formerly of Houston, Miss., has announced the opening of his clinic in the First National Bank building.

X-ray and other laboratory equipment has been installed for use in examination and diagnosis.

Dr. Baugh received his B. S. degree from the University of Mississippi and his M.D. from the University of Pennsylvania.

He did post graduate study at Columbia University, New York, and in John Gaston Hospital, Memphis.

Dr. Baugh served his interneship at Touro Infirmary, New Orleans.

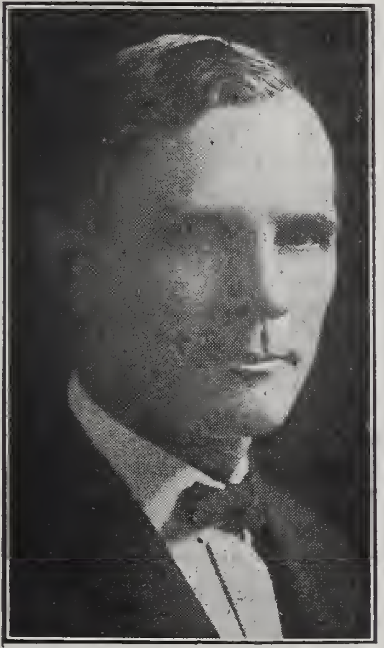
The physician came here from Houston where he was a member of the hospital staff there. Formerly he was on the staff of the Mississippi State Hospital.

He is an associate member of the American College of Physicians and is a member of the American Medical Association and the State Association.

Mrs. Baugh formerly resided in Columbus, being remembered as the former Miss Mary Frances Jones.

The above from the *Commercial Dispatch* will be of interest to the friends of Dr. and Mrs. Baugh of this section of the state.

DR. T. M. DYE



This is the familiar face of Thomas Melville Dye, of Clarksdale, Miss., who was again elected Secretary of the Mississippi State Medical Association at the annual meeting in May without a dissenting vote. This makes twenty years of service to the association as its secretary. He served as its president in 1916-17. Dr. Dye is a native of DeSoto County, son of Rev. T. W. Dye, a methodist minister. The preachers' sons you know have the highest batting average of success of all the professions. Tom graduated from Tulane Medical School in 1900, at the age of twenty-six. His most successful day came in 1901 when he married Miss Mary Osborne Johnson, of Jefferson County. His six fine sons are evidence of exceeding great wealth. As evidence of his diplomacy and his ability to take punishment he has served as trustee for the Clarksdale schools for nineteen years. Last year at the Greenville meeting Dr. Dye was a very, very sick man. This year at Meridian he looked the essence of good health, good cheer and exuberant optimism. His step is a bit more swift than in the past and his eyes are a bit keener in observation. He talks a bit less and listens a bit more intently. And this is where the mayorship comes in. It has shaded a bit of the professional airs. He is serving Clarksdale for a four-year term as mayor.

Program and Invitation of the NORTHEAST MISSISSIPPI THIRTEEN COUNTY MEDICAL SOCIETY

Second Quarterly Meeting Tuesday, June 15th, 1937, Houston Chickasaw County, 2:00 p. m., First Methodist Church. Following the scientific program a banquet will be given by Houston Hospital in Masonic Temple dining room, at 6:00 p. m.

L. L. McDougal, President; A. J. Stacy, secretary.

PROGRAM

House Called to Order by President, Dr. L. L. McDougal.

Invocation by Rev W. J. Dawson.

Reading and Adoption of Minutes of Last Meeting.

Diabetes Mellitus by Dr. W. H. Ivey, Houston.

Eye Injuries, Their Treatment and Sequellae by Dr. D. W. Hamrick, Corinth.

Heart Disease in Pregnancy, discussed by Dr. Willard R. Worth.

(Interne of Post Graduate School, Tulane University, New Orleans, La.)

An Attempt to Regulate Human Reproduction, With Report of Case by Dr. E. B. Burns, Ecru, Miss.

Prenatal Care by Dr. J. S. Edmondson, Vardaman, Miss.

This is the private hospital of Dr. H. N. Mayes, of New Albany. It is one of quite a number of private hospitals in Mississippi which have rendered fine service for the people and have managed to finance their way all right. The man who has invested large sums of money in a private hospital and gone forward with it during the last ten years deserves much credit. It has taken courage, application and quite a bit of brains to do this. Mississippi is well blessed with hospitals. If it can hold and improve what it has the people can be well hospitalized. *The Mississippi Doctor* will be glad to run a picture of your hospital, any one, if you will send us a cut.

List of Contributors to The Mississippi Doctor for 1936

Robert E. Parrish, M.D., San Antonio, Texas —Mastoid Complications: A Clinical Discussion.

David E. Guyton, Blue Mountain, Miss.—Poem—New Year, 1936.

Dr. C. E. Boyd, Amory, Miss.—Diarrheal Diseases and Their Management.

Dr. Jas. C. Green, Tupelo, Miss.—The Conservative Treatment of Peripheral Vascular Diseases By Means of Alternating Positive and Negative Pressure.

Dr. Paul G. Gamble, Greenville, Miss.—Hydronephrosis Caused by Anomalous Vessels of the Lower Pone.

Dr. W. A. Dearman, Gulfport, Miss.—Pulmonary Moniliasis.

Dr. Seale Harris, Birmingham, Ala.—High Carbohydrate—Low Fat Diets in the Treatment of Diebetes Mellitus; and Low Carbohydrate—High Fat Diets in Hyperinsulinism.

Dr. William C. Chaney, Memphis, Tenn.—A Practical Consideration of Allergy.

Dr. Henry G. Hill, Memphis, Tenn.—Bone Tumors.

Dr. George R. Livermore, Memphis, Tenn.—How the General Practitioner Can Cooperate With the Urologist in the Treatment of the Surgical Kidney.

Dr. Felix J. Underwood, Jackson, Miss.—Dental Cripples.

Dr. S. F. Hoge, Little Rock, Ark.—Spider Bite Poisoning: Arachnoidism.

Dr. Hubert K. Turley, Memphis, Tenn.—Alkaline Incrusted Cystitis.

Dr. Josephine B. Neal, New York, N. Y.—The Diagnosis and Treatment of Meningitis.

Dr. J. R. McCord, Atlanta, Ga.—The Doctor and Childbirth.

Dr. I. S. Wechsler, New York City—Neurological Problems in General Practice.

Dr. John T. Murphy, Toledo, Ohio—Irradiation Therapy in Breast Cancer.

Dr. George F. Carroll, Biloxi, Miss.—The Scope of General Surgery.

Dr. A. Dabney Hurt, Corinth, Miss.—Closed Wounds of the Abdomen.

Dr. Thomas Wolford, Columbus, Miss.—Common Proctological Conditions.

Dr. Dick Cauthen McCool, Memphis, Tenn.—A General Consideration of Mental Disease.

Dr. G. A. Hendon, Louisville, Ky.—Continuous Suction as a Means of Surgical and Functional Drainage.

Dr. I. I. Pogue, Scott, Miss.—Malaria Control.

Dr. Ira B. Seale, Holly Springs, Miss.—Some Problems in the Care and Feeding of the Infant.

Dr. W. S. Taylor, Isola, Miss.—Comatose Pernicious Malaria.

Dr. F. S. Hill, Grenada, Miss.—Infant Feeding.

Dr. J. R. Sims and Dr. J. C. Culley, Oxford, Miss.—Ectopic Pregnancy.

Dr. W. B. Dickins, Greenwood, Miss.—Hydatiform Mole.

Dr. E. M. Landis, Philadelphia, Pa.—Observations on the Diagnosis and Treatment of Peripheral Vascular Disease in Man.

Dr. V. B. Harrison, Holly Springs, Miss.—Management of Syphilis From the Standpoint of Public Health.

Dr. Claude S. Beck, Cleveland, Ohio—The Heart as a Surgical Organ.

Dr. Willis C. Campbell, Memphis, Tenn.—Fractures of the Patella.

Dr. Otis S. Warr, Memphis, Tenn.—The Diagnosis and Management of Acute Circulatory Failure.

Dr. W. H. Sutherland, Booneville, Miss.—Tuberculosis: A Surgical Disease.

Dr. John C. Culley and Dr. James R. Simms, Jr., Oxford, Miss.—Anesthesia in Obstetrics and Obstetric Complications.

Dr. V. C. Temple, Hattiesburg, Miss.—Asphyxia of the Newborn.

Dr. T. E. Ross, Hattiesburg, Miss.—Inguinal Hernia.

Dr. George W. Mast, Jackson, Miss.—Notes on the Poliomyelitis Epidemic in Mississippi.

Dr. C. R. Straatsma, New York City—Plastic Surgery Faces the Future.

Dr. P. Jorda Kahle and Dr. Hugh T. Beacham, New Oreans, La.—The Present Status of Trans-Urethral Electroresection of the Prostate Gland.

Dr. R. A. Street, Jr., Vicksburg, Miss.—Hyperemesis Gravidarum.

Dr. S. F. Hoge, Little Rock, Ark.—The Treatment of Rheumatism with Gold Salts.

Dr. Franklin T. Bower, Hattiesburg, Miss.—The Gall Bladder Problem.

Dr. E. E. Benoist, Natchez, Miss.—Maintenance of Relative Asepsis in Abdominal Surgery.

Dr. James B. Stanford, Memphis, Tenn.—Modern Ophthalmology.

Dr. Leon S. Lippincott, Vicksburg, Miss.—Blood Chemistry in Kidney Disease.

Dr. Norman F. Miller, Ann Arbor, Mich.—Present Status, Anticipation and Management of Toxemias of Pregnancy.

Dr. R. H. Jaffe, Chicago, Ill.—Differential Diagnostic Difficulties in Leukemia.

Dr. D. G. Rafferty, Pass Christian, Miss.—Periodic Health Examinations—Their Failure and Remedy.

Dr. G. W. Eubanks, Greenville, Miss.—Selective Anaesthesia.

Dr. D. A. Ratliff, Columbia, Miss.—Management of Labor in the Home.

Dr. W. A. Johns, Corinth, Miss.—Management of Diphtheria.

Dr. J. A. Beals, Greenville, Miss.—Cancer of the Lip, Etc.

Dr. A. G. Bryan, Amory, Miss.—Letter.

Dr. David L. Farley, Philadelphia, Pa.—Fever of Obscure Origin.

Dr. Norman Bethune, Montreal, Canada—Some Aspects and Operations of Chest Surgery.

Dr. Harlow Brooks, New York City—Coronary Thrombosis.

Dr. Gilbert J. Thomas, Minneapolis, Minn.—The Significance of Chronic Non-Gonorrheal Foci of Infection in the Male Genital Tract and Their Relation to Chronic Disease.

Dr. Paul G. Gamble, Greenville, Miss.—Transurethral Resection of the Prostate.

Dr. William D. Hickerson, Sanatorium, Miss.—Diagnostic Clinics as an Aid in Preventing Tuberculosis.

Dr. R. B. Caldwell, Baldwyn, Miss.—Symptoms and Treatment of Pelvic Injuries in the Female.

Dr. Frank H. Lahey, Boston Mass.—The Indications for Surgery and the Surgical Management of Gastric Lesions.

Dr. J. A. Beals, Greenville, Miss.—Cancer of the Oral Cavity: A Review of Recent Literature with Special Reference to Radiation Therapy.

Dr. Harris Allen Gant, Columbia, Tenn.—Yellow Fever in Mississippi 1878-1905.

Dr. R. C. Smith, Drew, Miss.—When Drunk?

Dr. I. W. Barrett, Clarksdale, Miss.—Some Cytologic Changes in Allergy.

Dr. I. P. Burdine, Amory, Miss.—What the General Practitioner Should Know About Indications for Surgery in Tuberculosis.

Dr. L. C. Davis, Greenvile, Miss.—The Changes in the Eye Grounds in Systemic Diseases.

Dr. J. R. Hill, Corinth, Miss.—Some Accomplishments of Organized Medicine in Mississippi.

Dr. H. A. Gamble, Greenville, Miss.—Progress Made in Hospitalization in Mississippi for the year 1935-36.

Dr. W. Kendrick Purks, Vicksburg, Miss.—The Electrocardiographic Diagnosis of Coronary Occlusion.

Dr. W. C. Alvarez, Rochester, Minn.—Hints in the Diagnosis and Treatment of the Diarrheas.

Dr. Isidore Cohn, New Orleans, La.—Ward Rounds.

Dr. J. P. Wiggins, Cleveland, Miss.—The Failing Heart in Middle Age.

Dr. I. C. Knox, Vicksburg, Miss.—Ovarian Tumors.

Dr. V. B. Philpot, Houston, Miss.—Methods of Lowering the Mortality in the Acute surgical Abdomen.

Dr. J. A. Rayburn, Pontotoc, Miss.—The Relationship of Medicine to the Social Parade.

Dr. A. E. Brown, Columbus, Miss—Essential Hypertension.

Dr. W. H. Parsons, Vicksburg, Miss.—Fractures of the Upper End of the Femur With Particular Reference to Their Treatment.

Dr. Karl O. Stingily, Meridian, Miss.—Some Common Fungus Infections of the Skin.

Dr. Robin Harris, Jackson, Miss.—Sinus Disease and Nasal Allergy.

Dr. Abraham Levinson, Chicago, Ill.—Management of Acute Neurologic Manifestations In Children.

Dr. Fred W. Rankin, Lexington, Ky.—The Significance of Bleeding From the Lower Gastrointestinal Tract.

Dr. Walter E. Johnson, Vicksburg, Miss—Chronic Arthritis.

Dr. John F. Lucas, Greenville, Miss.—Prevention and Treatment of the Late Toxemias of Pregnancy.

Dr. Robert A. Strong, New Orleans, La.—The Diarrheas of Early Life.

Dr. Gilbert J. Levy, Memphis, Tenn.—Diagnosis of Preparalytic Poliomyelitis.

Dr. W. A. Evans, Aberdeen, Miss.—Diagnosing Acute Anterio Poliomyelitis in the Field.

Dr. T. H. Blake, Jackson, Miss.—Orthopedic Treatment of Early Poliomyelitis.

Dr. W. O. Baird, Henderson, Tenn.—Sudden Death.

Dr. John W. Shackelford, Greenvile, Miss.—Poliomyelitis.

Dr. Joseph E. Green, Laurel, Miss.—Diagnosis and Treatment of Influenza-Pneumonia.

Dr. Kenneth D. Blackfan, Boston, Mass.—Presentation of Anemia in Infancy and Childhood.

Dr. Charles J. Bloom, New Orleans, La.—Calcium and Phosphorous Prophylaxis; The Use of Dicalcium Phosphate and Diet.

Dr. Seale Harris, Birmingham, Ala.—Alcholic Beverages as Factors in Automobile Accidents.

Dr. Lyle Motley, Memphis, Tenn.—Treatment of Acute Circulatory Failure.

Dr. Stanley A. Hill, Corinth, Miss—The Diagnosis of Uterine Hemmorrhage.

Dr. S. B. Caruthers, Grenada, Miss.—Transitory Amnesia Due to Allergy.

Dr. H. L. Warwick, Fort Worth, Texas.—Report on Intra-Nasal Ionization in the Treatment of Hay Fever, Food Allergy and Asthma.

Dr. A. G. Wilde, Jackson, Miss.—The Clinical Significance of Episcleritis.

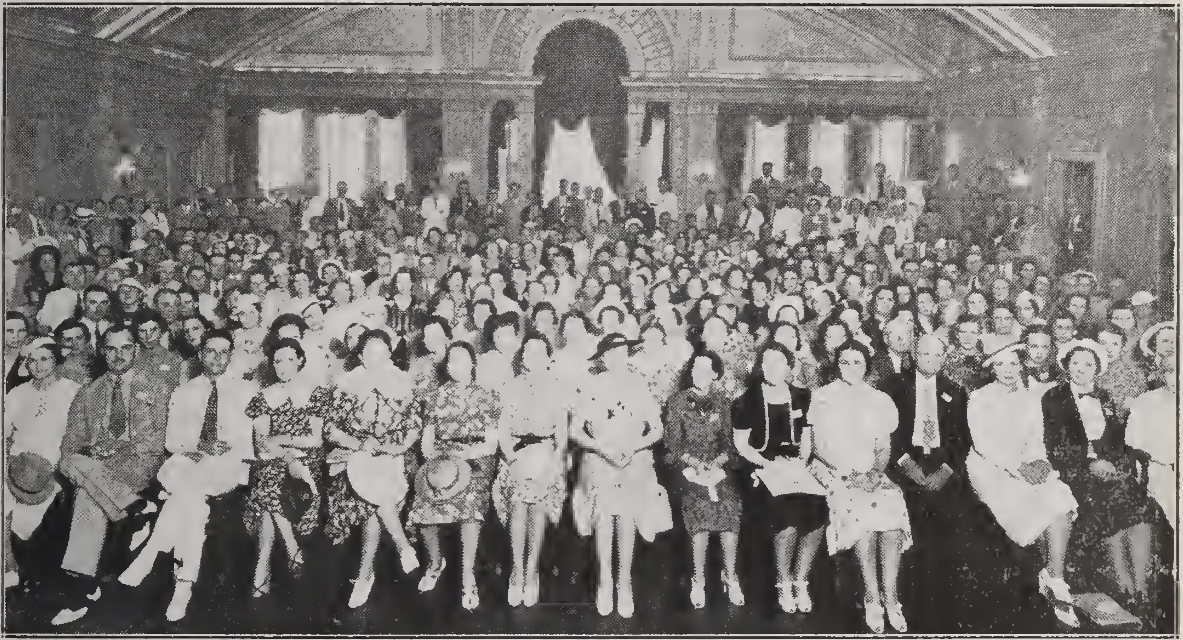
Dr. N. C. Knight, Clarksdale, Miss.—Laboratory Aids in the Diagnosis of Communicable Diseases.

Dr. G. A. Hendon, Louisvile, Ky.—Fracture of the Hip in the Aged.

Dr. Seale Harris, Birmingham, Ala.—Alcoholic Beverages as Factors in Automobile Accidents.

Dr. H. A. Gant, Columbia, Tennessee, featured speaker ot the Mississippi Public Health Association. President of the Mississippi State Board of Health during the yellow fever epidemic of 1898. Dr. Gant did meritorious service in advocating the theory of mosquito transmission.

Dr. Felix J. Underwood, Executive Officer of the State Board of Health since 1924, and first President of the Mississippi Public Health Association



General session of Mississippi Public Health Association at Hotel Edwards Convention, Hall, Jackson.

BOOK REVIEW

Infantile Paralysis and *Cerebral Diplegia*, by Dr. Elizabeth Kenny, of Australia, presents the treatment of these diseases in a completely different manner than we have met before, and she proceeds with her methods in such thorough and clear presentation it is not difficult to approve her argument.

Exercises and hydrotherapy from the basis of the treatment in both recent and old cases: in recent cases she tries to stop "the flame of nervous impulse" from getting low, whereas in recent cases there are no deformities, she aims to reawaken nervous impulse, prevent deformity and keep all joints movable. Working on the theory that the patient with infantile paralysis has a deficiency of motor nerve cells, Dr. Kenny argues that the surviving motor cells and their corresponding muscle fibers should be worked from the start, in gradually increasing doses, so that strength will be acquired. Her methods of treatment which she elaborates have the following advantages:

1. They maintain a good free circulation at all times.
2. They ensure a cheerful, optimistic frame pessimism from hindering the patient's of mind, and prevent any suggestion of chance of recovery.
3. They conserve and increase any power left in the muscle. (Certainly, disuse will cause atrophy even in normal tissue).
4. They prevent deformities, since a joint moved frequently is not likely to become

deformed.

Dr. Kenny describes in detail, with the help of photographs of all steps in the treatment, the procedure she employs, emphasizing especially the importance of treating each patient individually. It is impossible to obtain the same degree of cooperation in the communal bath or group exercise that individual attention affords. She goes into lengthy explanation of apparatus and practical details of treatment; she devotes a chapter to methods of dealing with complications for both the infantile paralysis and cerebral diplegia.

This book was published by Angus and Robertson, Sydney, Australia, but can be obtained in America from P. Blakiston's Son & Co., Inc., 1012 Walnut Street, Philadelphia, Pa. Price: $5.00.

MALARIA CONTROL ACCOMPLISHMENTS IN MISSISSIPPI—1936

By GEORGE E. RILEY, M.D.

JACKSON, MISS.

"Factor X" continues to operate in Mississippi. The cyclic trend of malaria during 1936 was on the decline.

The number of deaths ascribed to malaria during the past four years has been as follows:

Year	No. Deaths
1933	695
1934	647
1935	618
1936	328*

*This number does not include December deaths as these have not been tabulated.

Slide mailing outfits furnished to physicians throughout the state have aided in the increased use of the laboratory for diagnostic purposes. The demand by physicians for these outfits for the collection and mailing of blood smears has increased. Great improvement has been made in confirming the accuracy of diagnoses in malaria mortality. This is evidenced by the increase in the percentage of antemortem blood diagnoses in deaths ascribed to malaria, as shown in the following tabulation:

	No. Deaths Ascribed to Malaria			No. Deaths Confirmed by Ante-Mortem Diagnoses			Pct. Confirmed by Ante-Mortem Diag.
Year	White	Col.	Total	White	Col.	Total	
1929	121	195	316	18	11	29	9.2
1930	96	185	281	26	21	47	16.7
1931	82	129	211	22	31	53	25.1
1932	108	216	324	31	30	61	18.8
1933	275	420	695	68	86	154	22.2
1934	262	385	647	90	97	187	28.9
1935	228	290	518	77	85	162	31.3
1936	Report not complete for this year						

The increased use of the laboratory has resulted in a more specific diagnosis as to the type of infecting parasite. Dr. Meleney, in his presidential address before the American Society of Tropical Medicine, emphasized the fact that a definite knowledge as to the type of infecting parasite is the most important factor in the intelligent treatment of malaria.

Probably 90 per cent of the deaths due to malaria are caused by *Plasmodium falciparum.* It is the belief of most investigators that *Plasmodium vivax* and *Plasmodium malariae* very rarely, if ever, cause death in uncomplicated infections. Of the 162 deaths that were confirmed by antemortem blood diagnoses in 1935, 84 or 51.9 per cent were not typed.

The county health departments mosquito proofed more than 1,500 houses in 1936. No relief labor was available for this work.

The state board of health, using W. P. A. labor, constructed about 65 miles of ditch in or adjacent to cities, towns, or thickly settled communities. These ditches drained 667.5 acres of water surface, benefiting 203,426 persons. These figures include only accomplishments on completed projects. Many projects are under construction, some of which are almost complete.

Much permanent work was inaugurated the latter part of December. The type of work done has been of outstanding quality. Ditches are constructed according to the best engineering principles with proper side slopes. All ditches are to be sodded to prevent washing and to eliminate or reduce maintenance cost.

Mr. J. A. LePrince, Sanitary Engineer Director, U. S. Public Health Service, in his report to the Surgeon General following an inspection trip to Mississippi, said:

"A number of ditching projects and ditch lining projects were inspected and both Mr. Johnson and I thought excellent supervisory judgment had been used both as to the planning of the work and the economic phases of means of overcoming potential difficulties and also particularly of making use of available low cost selected material.

"The thing of greatest importance noted was the manner in which the district supervisors have been caused to become so enthused with a desire to use their heads that new methods of procedure not noted elsewhere have been devised and in our estimation these locally devised procedures may become future standard permanent malaria control measures over large areas of our country and others."

We noted also that extensive practical research work in connection with sodding of ditch banks is being accomplished and so done that it is all of value. Also departures from past practices in selection of materials used in ditch lining are being made to advantage.

"On the whole the field work is being so well done that the writer is of the opinion that the State Health Department of Mississippi should be complimented officially for

(1) The results being achieved.

(2) Their tendency to develop quicker, better, and cheaper methods of malaria control and also of developing methods which make use of low cost locally available material."

DR. FELIX J. UNDERWOOD

First President, Mississippi Public Health Association

We deeply regret that we were unable to attend the organization meeting of the Mississippi Public Health Association. We hope to have a full account of this meeting in the next issue. The honor guest at this meeting was Dr. H. A. Gant, of Columbia, Tennessee. The meeting lasted two days and was full of interest throughout. We predict great good from this organization. It was a fine tribute to the foresight and the ability of Dr. Felix J. Underwood. The love and esteem of his co-workers expressed itself in his unanimous election as the first president of the organization. He was gracious in his acceptance speech and lauded the efforts of his comrades in the cause of education. He assured them that through this democratic organization that any member with zeal, ambition and application may advance. Dr. Underwood has been ardent and vigilant eternal in his task to improve health conditions in Mississippi. He has the happy faculty of inspiring his co-workers to do their very best. His interest in them is deep and sincere and their advancement always brings joy to him. We congratulate Dr. Underwood on the work he has done and the confidence he has inspired. As he stands upon the history of the past, visualizes the possibilities of the future, and applies the practical machinery of realization, our heart swells with pride for the record he has already made and happily we anticipate the future progress of public health in Mississippi.

EXAMINATION NOTICE

The Mississippi State Board of Health will hold examinations for license to practice medicine at the new Capitol, Jackson, Miss., on June 23 and 24, 1937.

Examination on first two years—June 23. Send or bring certificate for verification.

Examination on last two years—June 24. Send or bring diploma for verification.

Write for application blank to Dr. R. N. Whitfield, assistant secretary, state board of health, Jackson, Mississippi.

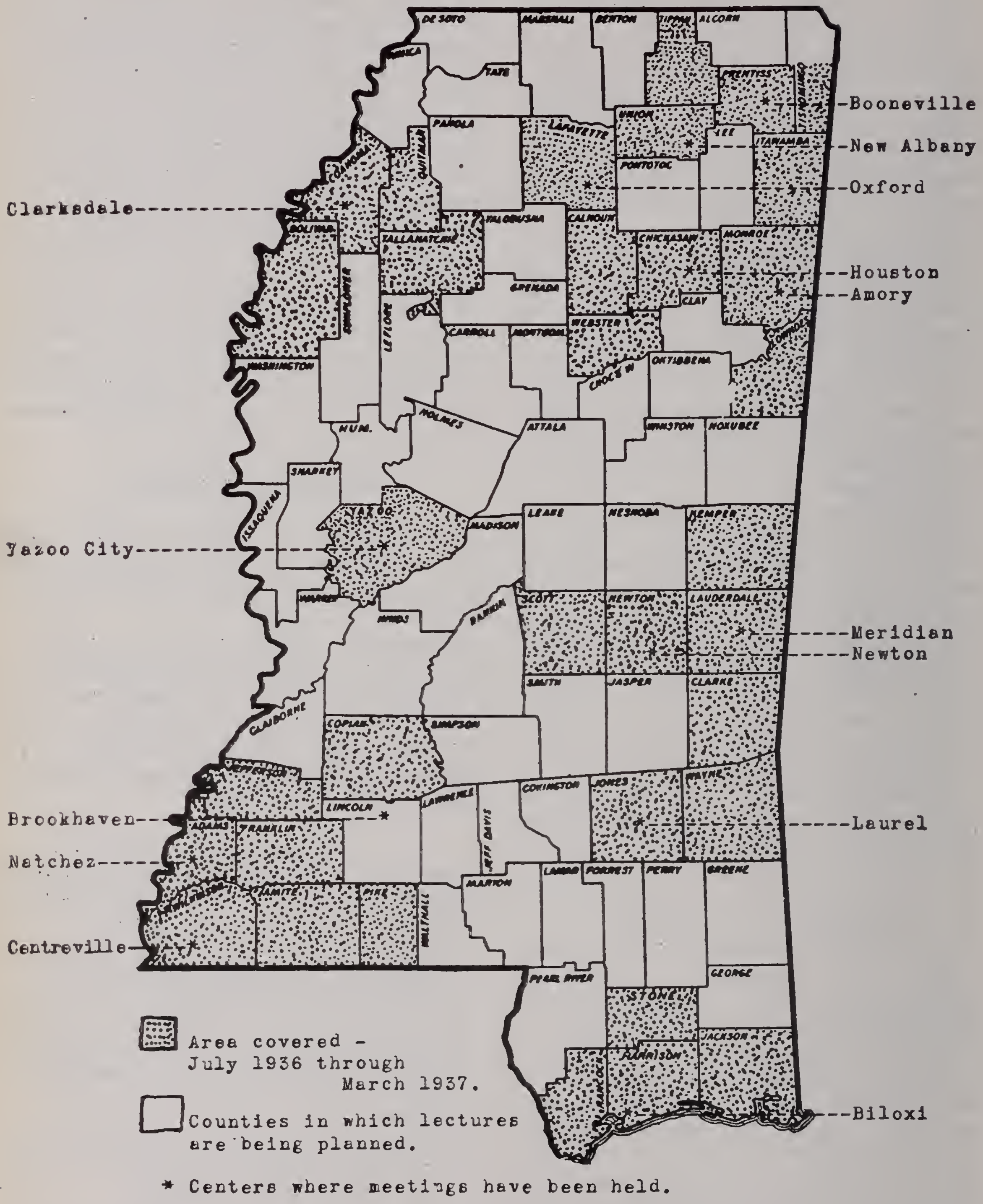
A very wise man, whose name nobody knows, once gave advice which has lasted centuries and is still good. In the Sanskrit Salutation of the Dawn it is written:

> Look at this day, for it is life. In its brief course lie all the verities and realities of your existence. For yesterday is but a dream and tomorrow is only a vision, but today well lived makes every yesterday a dream of happiness and every tomorrow a vision of hope. Look well, therefore, to this day.

That's a philosophy which makes every day a new year, and every day's work the only one that really matters.—Copied.

The sparrow enjoys the distinction of having two times as many vertebral bones in its neck than is contained in the giraffe's long neck. —*Fact Digest.*

PROGRAM OF PEDIATRIC INSTRUCTION IN MISSISSIPPI



Program conducted by Dr. Robert A. Strong and under the sponsorship of the Mississippi State Medical Association and the Mississippi State Board of Health, Tulane University Schools of Medicine and Mississippi State Hospital Association.

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

Here and There in the Upper Air Passages*

E. LeROY WILKINS, M.D.
Clarksdale, Miss.

In bringing this paper, I do it with no hope of giving you something new, but rather of rehashing some of the older and newer things concerning abnormal conditions here and there in the upper air passages. I shall not take up the embryology, anatomy, physiology, and so forth, and shall not go into detail to any great extent.

As we take up the nose, let us remember its general inside shape, that of an upright triangle, with its turbinates to reduce the size, particularly the upper part, and to "air-condition" for our lungs, heating and moistening the air. Present day air-conditioning of houses and office buildings, to say nothing of factories and workshops, will do much in the next few years to reduce the frequency of ills in the air passages and, naturally, many other ills to which the flesh is heir.

The membranes of the nose are rather delicate and vascular in their structure, being more or less easily influenced by heat and cold, moist and dry air. The vibrissae or normal growth of hair within the outer portion of the nasal passages acts as a filter for the larger particles which are air-borne, but not the finer particles which might be very irritating, nor to the bacteria and germs in general which might enter. Fortunately, the mucus secreted within the nose has some bacteriostatic properties and thus gives us some protection.

What has been said of the nose is more or less true in all portions of the air passages.

The common cold, which we have always with us, is fortunately not always severe, but its presence is fraught with many possibilities of danger. It causes a greater loss of time and efficiency than most all other diseases combined. Yet we know very little about it. The common cold is not prominent among the lower animals, but is more so in the apes and kindred animals who more closely approximate mankind. Particularly is this true in captivity and association with man.

The common cold may progress, either with or without treatment, until its damage may become quite far reaching, involving the sinuses, ears, mastoids and finally the meninges and brain. Its diagnosis is evident. Its treatment immensely varied. Prophylaxis is the best treatment, and prophylactic measures are almost as varied as treatment. Perhaps first place should go to avoidance of contact and sudden changes of temperature (external) and exposure. Yet many persons are seen with colds with no known contact, and others with much sudden changing of temperature are not affected, such as those who work in and out of cold storage rooms many times a day. (I know of one such.) Vaccines are of value but were discussed before.

I believe that a large percentage of colds may be aborted at outset by the use of mild antiseptics such as metaphen, neo silvol, argyrol, merthiolate, and so forth, either with or without epherdrine. The ephedrine is to be used with those cases where there is turgesence and marked congestion of the membranes, more concretely, when there is not full and free air passage. It is probably true that the causative agent of colds is to some extent anaerobic, though we feel that it can be airborne. We do know that in many instances, when colds are present, and are so for some time, and there is a blocking of the air passages, we are much more likely to have infections in the sinuses as result of lowering resistance of the tissues and much more destruction and damage. Perhaps this is partly due to the preparation of the field for the incidental infection by other germs or causative agencies. Certainly it is true in many cases of otitis media that they clear very readily with a large, free opening of the tympanic membrane and not so well with the smaller opening, though it affords sufficient drainage to allow the tympanic membrane to remain in normal position.

---

*Read before the Coahoma County Medical Society, Clarksdale, March 10, 1937.

Some authors claim that the sinuses are involved in every common cold or rhinitis, just as others do regarding mastoids in otitis media.

The question of "sinuses" has become almost equal to that of "malaria." It has been much over-stressed by the profession as well as the laity. No one has a "bad cold" any more. It is either a "sinus cold," "sinus trouble," or just plain "sinuses." This has provided a fertile field for many rhinologists, far in excess of the "cold". Fortunately, the era of great amounts of nasal surgery has largely passed. Only a few are left who operate, then treat. I have stated before, and I do again, that one of the most pitiful types of cases with which I have to deal is that of the "super-operated nose." Thank God, we are seeing fewer and fewer of them.

Many of the best writers of today are contending that very few cases of sinus involvement cannot be cured, both acute and chronic, without surgery, or at least with surgery of the most minor sort. Some maxillaries and a few frontals need irrigating, and most of this can be done through or in the region of the normal ostia. The same amount of treatment, as energetically applied, before operating as is usually necessary after operation, will save many operations and lose the hospital and doctor many operative fees.

Many patients come to me saying they have sinus trouble or "sinuses," giving most of the signs and symptoms, thereof, who are entirely relieved within two to five days by treatment. The treatment ranges from the simple establishment of ventilation and normal drainage, with the resultant decongestion, praticularly high up in the nose, which is accomplished by the use of mild solutions of Ephedrine, either in normal salt solution or combined with the mild mercurials or silver soultions, to the more complicated packs (Dowling), irrigation-suction or the Proetz displacement. Occasionally, one or more irrigations of a maxillary, usually accomplished through, or in the area of, the natural ostium when no bone is penetrated are required. Rarely a frontal must be irrigated.

Treatments by the patient consist of some of the medicaments above mentioned used by the drop method, which I find much more effective than the spray, in either the Proetz or the later "lateral head back position." Hot fomentations or where available, the infra-red heat, or occasionally just plain frosted globe light (the old carbon filament was much better for the purpose) should be used. There should be the usual attention to diet and elimination, and aspirin or empirin compound may be used for relief of painfi when severe. Sometimes codeine is incorporated with the aspirin. There should be rest in bed, if possible to obtain it.

I have spent quite a few pennies, at from $1.50 to 2.50 per, for specially made tubes for sinus drainage, only to let most of them deteriorate beyond use in my cabinet. The cases that *have to have* the tubes usually go elsewhere. I find that the usual small rubber tubing, ifproperly placed and anchored, serves as well as the self-retaining type, is easied to remove and probably cause less irritation.

Thus briefly for the nasal passages:

The nasopharynx, lying as it does, between the nose and pharynx, commonly called the throat, is frequently sympathetically or by continuity the victim of the ills of both. A chronically wet or inflamed nose is usually accompanied by a nasopharyngitis. It most often reacts to the nasal treatment as the solutions drip or flow back over its tissues which are very similar to those of the nose, as well as of the pharynx.

It is not infrequent to find a definite pus sinus in the area of Luschka's tonsil, or adenoid. I believe this to be "a frequently overlooked focus of infection" inadults. I read a paper on the subject, which sometimes called Thornwaldts disease, some dozen or so years ago before the State Medical Association. This, of course, if present must be eliminated. Otherwise the treatment in this area would be much the same as for the nose or the pharynx, which ever the case might be. The fossse of Rosenmuller are possible sites of trouble, and can be seen with a mirror or nasopharyngoscope.

The pharynx is also akin to the nose in the structure of its membranes, and heir to the same troubles, and, those of the tonsils, to say nothing of many ills of its own. Frequently, it is in this location that we first see the streptococcic infections which invade these areas—diphtheria, and so forth. The infections here may be mild or extremely severe. Redness alone may not be a criteria as to the discomfort or systemic effects of the condition. An intensely inflamed pharynx may not be noticed by the patient as a local condition, and a mildly red one may be intensely uncomfortable.

It seems I have seen more of this latter type during the last few years than before. I have thought that the use of natural gas for heating and cooking might be a cause, but I find some of them in those who do not have gas, who live in the country. Also, it is fairly prevalent in seasons when little gas is used, particularly in the fall. In these cases the membranes are never so red as the discomfort and frequently systemic reactions would indicate. Often there is only a slight reddening of the "lateral rolls," and little else to see. There is, however, usually a peculiar coloring of the posterior wall, which may be masked by a coating of tenacious mucus, and when one does see it often, it is fairly easy to recognize, though it is some what like the coloring of the anterior tonsillar pillars. It is hard to differentiate in some cases. In these cases, I find that I do not get results from treatment unless this coating is removed, either by swabbing or dissolving by much gargling or irrigation. In swabbing, it takes definite pressure to remove it. I find that iodine on a swab does not help much, while as a content of a hot gargle, it is of benefit. I use the tincture of merthiolate, perhaps most, tincture, or alcoholic solution of mercurochrome, mercressin (I understand it is quite similar and effective), and cresatin (meta-cresylacetate). I believe it hard to surpass hot salt or salt and soda gargles, or better, irrigations. To be effective these must be used not too strong, and used hot, frequently, and in fair quanities. Two or three times a day is of little value. Aspirin, thantis cozenges, and sucrets dissolved on tongue or as a powder, offer some relief from discomfort, if they do not by their astringent or bacteriacidal action aid in limiting the disease. I have no tfound silver nitrate of much value.

This condition is, as indicated above, much more prevalent in the fall, winter, and spring, and provides a considerable amount of the laryngologist's practice in these seasons.

The germ incidence in those that I have had examined and cultured is "mixed." The term applied is "red throats," "flu throat," "pink throat," "cold throat," "strep throat," and so forth. Again, I am sure that I have seen and treated much more of this condition in the last half dozen years than before that time. It is recurrent and especially so if not treated till fully recovered. The same patient may have several attacks, or may have it continuously with slight remissions. It is almost as common and severe in those who have been tonsillectomized as those who have not, but those with tonsils frequently get tonsil involvement, not true tonsillitis, as well. This is particularly so if the course is long or untreated.

The vaccines, bacterins, and so forth have not been of great help. Treatments as above, with supportive, dietetic care, vitamin intake, fresh air and rest, seem all that can be done.

I referred to the tonsils and shall pause here only to mention that in their examination, particularly in adults, a negative diagnosis should not be made until the "tonsil node glands" have been palpated, or searched for, the presence of the "chronic crescent" on the anterior pillars, at about the line of attachment, not the edge, with the tonsil, to find whether there be pus and detritus deep in the tonsil. Cheese masses alone do not always indicate possible foci of infection; however, infection is very frequent when there is much of this rueferial. This you will find by proper pressure or use of suction cup. There is also creamy pus deeper in the tonsil.

As the title indicates, this paper is not exhaustive, but rather here and there and mostly there for there isn't much here. If I have raised any questions which may provoke discussion or that I may be able to answer, or are unanswerable, we may possibly benefit by these latter, and anyway, I have taken up the necessary and allotted time.

Gonorrhea

J. W. JACKSON, M.D.
BELZONI, MISS.

My attempt to present a subject about which I am so ignorant is made with an apology. The selection of it has been regretted many times. Moses' radical measure of having five thousand of his number who had venereal diseases executed is not so surprising. He certainly recognized the difficulty of curing such disease, and the futility of preventing its distribution. No doubt it is one of the wages of sin which affects the innocent and guilty alike. The disease is so common and yet so repugnant. It is freely discussed by the medical profession and by laymen, yet not much is seen printed concerning such. Not a great deal appears in medical journals. Too little advice is given concerning its prevention and too little information is given patients as to how to prevent complications. Many of us would rather dodge the issue than write of our experiences with handling these cases, because of our difficulties and disappointments in treating them. Generally it is easy to determine the presence of acute gonorrhea, but as Keys has said, "Only God knows when it ends."

Diagnosis of an acute case in the male is generally easily made. In the female it is not so easily made every time, especially in the home where both history and examination are unsatisfactory. To be ruled out are pyelitis, non-specific cystitis and urethritis, non-specific endocervicitis and salpingitis, other pelvic pathology, and very frequently appendicitis. Of course, any of these may be co-exisiting conditions, but usually symptoms of the specific infection in the acute case predominate. To obtain a thorough past and present history, to do a complete examination including always pelvic, bimanual and speculum examinations if possible, and to verify physical findings by microscopic study of smears from Skene's glands, unrethra, vagina, Bartholin glands if infected, endocervix, and of centrifuged specimen of urine, is no lazy man's job. Usually more than one The essayist has treated one case where on- of these parts are involved in the acute case. ly the urinary tract became infected so far as could be ascertained. External genitalia were so swollen and edematous as not to permit of a vaginal examination. At no time could a discharge be seen issuing from the vagina, nor did examination following recovery reveal any sign of vaginitis or endocervicitis. Because of mixed infectious, chronic cases in both male and female present formidable problems as to diagnosis as well as to treatment and prognosis. All possible locations must be investigated. In the female material from Skene's glands and the endocervix seems to give the most satisfactory microscopic information. In the male that from the prostate usually is mos reliable. Both methylene blue stain and Gram's method for examining materials from the same source are preferred by me. In infants five cases of gonorrhea have been diagnosed during the past twelve months by routine examination of dried urinary sediment. In three of these the parents had not noticed any discharge. In two discharge was not mentioned till close questioning was done. In none of the five girl infants was discharge seen in the vulva on initial examination. Not infrequently a woman will give as her chief complaints symptoms with reference to the digestive system. You find her with sheet drawn tightly over the head. She is shy and seclusive. Surely enough you elicit tenderness and rigidity in epigastrium or R. U. Q., but you will find the real trouble in the lower quadrants. Some writers state an incidence of as high as 30 per cent rectal infections in female gonorrheics. I have not looked closely enough to verify this percentage. Never had rectal gonorrhea in a male been seen by me till nineteen months ago. The anal canal was filled with bloody pus. Mucosa was red and elematous. Large internal and external hemorrhoids were present. Three internal fistulous openings were noted. In one ischio-rectal fossa wac an extensive abscess. During two years he had visited several clinics. Not a single smear was made. His friends sent him to New Orleans where all of them were cured of "piles" without surgery. He received 48 injections, and boasted of having no more piles in giving his history. History of genito-urinary tract infection was negative. Examination here was entirely negative.

Many times a close study must be made before and much tact used when announcing a diagnosis, especially to certain women who have chronic and mixed infections. It must be positive, and in neurotic cases the consequences are to be considered. If they are mothers of young infants, I do believe the diagnosis along with detailed directions to avoid transmission of infection should ever be withheld.

Preventive treatment begins in the home and involves individual study on the part of parents of their children with alert apprehension and correction of early misguided and perverted erotic tendencies. A physician who is a good psychologist may need be consulted. At puberty or shortly before to certain girls, perhaps all, and to all boys should be given the parental advice that intercourse besides being to them a vice is not essential to health and happiness, since the mental attitude largely governs their developing sexual urge and emotional in stability. Then the dangers of venereal diseases should be mentioned. They know something already of the meaning of sexual intercourse, but they know nothing of these diseases. With few exceptions parents do not recognize any such responsibilities, or they are too busy, or too selfish, or too ignorant to study and attempt to guide the minds of their children. Many openly set bad examples.

In all high schools three or more lectures on venereal diseases should be given each session, preferably by physicians, who should be paid. It is up to us to impress upon the lay mind the absurdity of false modesty, and not till it accepts common sense admonitions will venereal disease be curbed. Due emphasis should be placed upon the dangers of alcohol. The use of prophylactic heasures and devices should not be advised for the youth. They have met with failure to the adult, usually when he is so drunk that he forgets to use them or doesn't have a care.

No one would be so egotistic, or have temerity or be so ignorant as to say that he specifically cured any cast of gonorrhea. Much can be done by exercising patience, gentle persistence and due regard for individual differences toward helping one cure himself or at least rendering himself symptom free and not capable of transmitting the disease to another. There is nothing to be added to your knowledge of treatment. Of most importance is a rigid routine of advising the patient as to the nature of his infection, the symptoms and dangers of complications and how to prevent them. It is well to make progress notes detrimental to stimulate too much confidence in drugs. As your case improves, more than ever should emphasis be placed on proper cooperation. If possible outside advice should be forestalled. The quick cure seeker should be passed up. The dileberate poor cooperator should be dismissed if he has been properly informed, and warned. I am pessimistic about complications. Livermore, who treats his patients daily, ten years ago stated that 85 per cent of his cases developed complications. The majority of mine have them when they report for treatment.

Pelouze's conception of local treatment has meant a revelation to us. The general trend in the use of injections, irrigations, and instillations during the past ten years has been toward conservatism. My ten years ago injection of 15 to 30 per cent neosilvol or 10 per cent argyrol or one-half of one per cent protargol, five to six times daily, has been changed to 5 to 10 per cent neo-silvol or three to five per cent argyrol or one-quarter to one-half per cent protargol only once to twice daily and with instructions to release irrespective of minutes if any appreciable irritation is felt before the retention time is up. Warm potassium permanganate 1: 8,000—1: 5,000 solution as an irrigation in anterior or posterior gonorrhea of the male, given at intervals according to the tolerance and progress of the case, has stood the test of time. Occasionally a case will not tolerate irrigigations of any dilution in any amount. Usually blondes do not tolerate local treatment as well as do brunettes. As Pelouze advises us, the aim in the use of any chemical is to have it of such strength as to only stimulate local resistance, by virtue of its tonic effect, otherwise, the mucosa is more extensively destroyed, the submucous glands, blood vessels, and lymphatics, which are acting as second line of defense are damaged, and the gonococci which have already infiltrated these structures pass more freely into the periurethral tissues along with other organisms present, and result in abscesses and later strictures as scar tissue forms in nature's attempt to repair the damaged areas. In my experience it is encouraging to have noticed fewer periurethral complications during the past five years than had been seen prior to this period. Possibly the depression had something to do with this.

Cowperitis, prostatitis, trigonitis, seminal vesiculitis, and epedidymitis are complications the occurrence of which in my opinion depend more upon individual variations in anatomy, local resistance, and the patient's care of himself than upon any mode of treatment by the physician. Shortly a case history will be read to prove this contention.

Conservatism in the local treatment of gonorrhea also applies in the female. Rest in bed and cleanliness are to be stressed. Large hot vaginal douches eight to twelve quarts begun at a practical time and given properly with bag twelve to sixteen inches above reclining patient are very valuable. It matters not so much what is in the water as it does how hot it can be tolerated. As with high temperature elevation devices for men, unfortunately most of us can not afford the necessary equipment to give the Elliot treatments to women.

Gonococcus filtrate, prepared and described first by Clark, Ferry, and Steele, is unquestionably a most valuable agent and adjunct in treating both acute and chronic gonorrhea. This bouillon filtrate as you know is said to contain an exotoxin which is capable of stimulating the formation of specific antitoxin. During the past twenty-two months fify-six cases have been given the filtrate by the writer. Too much should not be expected of any one item. While six to eight doses usually relieve the majority and apparently produce clinical cure, a close check up with the microscope does not indicate a cure within three months. Unfortunately most of these 56 cases already had complications at the beginning of treatment, and many of them had minimum to moderate degree of involvment after three months. Pain, urgency, frequency, etc., are promptly lessened by one or two doses. Females seem to be relieved more promptly than males, and unfortunately no more is seen of most of them after the sixth or eighth dose. In certain cases, especially where local treatment was not well tolerated, only the filtrate was used. One negro man, who had lost 35 pounds in weight during three months of agony, groaned with tion could not be given. Twelve doses intradermally together with consistent prostatic massages relieved and enabled him to make a crop. In men the vesicles and prostate should always be examined during the course of their diseases and their treatments never neglected. Any number of doses of our famous filtrate alone will not eliminate these organs of their infection. Where secondary infection plays a big role and keeps the chronic case chronic, gonococcus filtrate can not be expected to accomplish anything other than to aid in getting rid of gonococci. Here no doubt is where the new treatment is condemmed by some as being worthless for any case. In the mixed infections alternating a non-specific protein such as neo-lacmanese with the filtrate affords advantage. It does not to me seem ridiculous to state that local infection elsewhere may in a definite and specific manned influence the chronicity of many such cases. Whoever places so much confidence in gonococcus filtrate, accepting it as a specific and a sure cure, as to neglect the necessary routine and individual details in managing his case, is certain to meet with disappointment. The writer has had no experience with the use of Lilly's gonococcus lysate.

The following case history is given because of an unusually mild urethritis, moderately severe early prostatitis, and vesiculitis which required persistent treatment over a period of four months:

March 22, 1936: White male, age 20, exposed 7 nights ago—yellow creamy discharge four days later which has become profuse. Moderate stinging and frequency of urination. No nocturia and no backache till today on lifting. No perineal discomfort. P. H. venereal infection, negative. Statement reliable. Urine has shown some pus on several examinations during past 6 years which was thought to be due to badly infected tonsils. P. R. 78, T 99.1., first flow of urine very cloudy; second cloudy; third slightly cloudy. Much amorphous phosphate. Albumen, heavy trace. Second and third portions show 0-8 pus cells to H. P. F. Redundant prepuce, very red and swollen. Prostate gland smooth, slightly enlarged and slightly sensitive to very gentle massage. Microscopic of urethral smear: pus cells (***); diplococci, gram negative, intracellular (*) and extracellular (***) bacilli, gram negative (*).

Perostatic smear: pus cells 4 - 20 (O.I.F.); diplococci, gram negative, intracellular few and extra-cellular (*); Gram negative, bacilli few.

March 29. T. 98.4, P. R. 64. Discharge slightly increased. Rhode 70 miles yesterday.

April 11. No discharge; urine clear; no symptoms other than aching of testicles today. T. 99.4, P. R. 78. Nose, throat, and chest show evidence of acute respiratory infection.

Slight tenderness to pressure over right vas at external inguinal ring. Right portion of prostate and right seminal vesicle slightly larger and more sensitive to pressure than left corresponding parts. Massages will be given regularly at 4 to 7 days intervals. Prostatic smear: pus cells 5 - 30 (D.I.F.); mononuclear cells few; diplococci, gram negative, intracellular occasional pair and extracellular (*); bacilli, gram negative, few. All diplococci atypical till after 30 minute search.

4/13. No further pain in scrotum; no tenderness over vas.

4/21. Urine shows no pus or bacteria. Prostatic smear: pus C O-10 (D. I. F.); mononuclear cells 1 - 10 (O. I. F.); diplococci, extra-cellular and intracellular few atypical.

4/24. No complaints, urine clear of pus and bacteria. Prostatic smear shows occasional field of numerous pus cells but rare pair of gonocossi.

4/30. First urine shows few shreds; 2nd, clear. No symptoms. Shreds show much pus but no bacteria. Prostatic smear: O - 2 pus C (O. I. F.); occasional bacillus. No gonocossi.

5/4. T. 99, P. R. 80, urine clear; left lobe of prostate and left seminal vesicle moderately indurated, and more sensitive than right corresponding parts. Response to massage is good.

5/19. Prostate gland much smaller, slightly nodular and less sensitive. Drains well on massage.

5/26. Prostatic smear: pus cells rare; mononuclear cells few; extra cellular gram negative; diplococci few.

6/10. Urine clear. Prostate normal except for tenderness to firm pressure over upper portion of left lobe. Left vesicle slightly sensitive to deep pressure and slightly indurated over lower portion. Prostatic smear shows no pus, but an occasional pair of typical gram negative diplococci.

6/25. Smear, prostate: pus C. 5 - 12 (O. I. F.); bacilli (*); diplococci extracellular (**) and intracellular few.

6/28. Prostate smooth but slightly swollen.

7/3. T. 98.6, P. R. 72. Urine free of pus and bacteria. Prostate normal in size and consistency and empties readily. Shear shows O-5 pus cells to O. I. F. and few extracellular gram, negative, atypical diplococci. Patient to C. C. C. Camp.

In this case thirty-three office visits were made, and progress notes were recorded each time. Temperature ranged from 98.1 to 100 degrees. Pulse rate was 64 to 92. Gonococcus filtrate was given in thirteen doses of 0.1 c.c. to 0.45 c.c. totaling 4.3 c.c. and producing skin reactions of 1½x1½x to 2¾x3 inches. It was given at five-to-fourteen-day intervals, but usually every seven days. Two doses of Breon's neo-lacmanese were usd. In addition to massags local treatment consisted of permanganete irrigations and 5 per cent neo-silvol injections once to twice daily for a part of the time. Cooperation was unusually good except on two occasions. His tonsils were removed June 1.

Prognosis seems to depend more upon individual local and general resistance than upon any method of treatment. This is mainly true of the acute uncomplicated cases in males where radical therapy makes a bad prognosis. Why do we see negro laborers who are well clinically and microscopically two months after onset of an infection without having had any form of treatment except maybe a few pills? Then why do we witness our blond white man carry his disease for months, and years when he has had what is accepted as adequate therapy? Systemic resistance as infixation reaction has to be considered. Lodicated in some measure by the complementcally the appearance of the mononuclear cells in the discharge in increasing numbers as the pus cells become less means gain in resistance, yet in some cases of long standing these cells can be found in larger numbers than the pus cells, but they usually do contain hat gonococci are not extracellular. What is the significance of finding atypical gram negative diplococci long after our patient is clinically well? They are often seen at various times when the infection is active and seem to persist in certain cases indefinitely. Can it be that these become symbiotic with other bacteria? Can they in the future produce any local or systemic disturbance in the host? Can these by transmutation become typical organisms capable of infecting another without exciting any active disurbance in he host?

My conclusion is tht there is much to be learned about the gonococcus and gonorrhea.

Common Colds and Treatment

B. H. BOOTH, M.D.
DREW, MISS.

Probably in no othe rdisease have our conceptions changed more than in this trouble. According to the recent conclusions of Dochez and others as the result of much investigation, there seems to be a pretty well accepted theory that this is really a compound disease.

The underlying infection is a filterable virus, which is the cause of THE COMMON COLD, per se, but the nasal passages are always the habitat of a number of common pathogens, such as B. influenza, M. catarrhalis, D. pneumonia, and others, so that we have very few common colds that have only an infection from the filterable virus. It must also be accepted that there are a few so called common colds that do not have the virus but are caused solely by pathogens.

This is probably the most widely spread of all human diseases and there seems to be practically no immunity on account of age, sex, race, occupation or location, although many individuals are more susceptible than others. Also seasonable variations must be noted.

All of the symptoms are well known and vary widely from a simple catarrhal inflamation to symptoms of the gravest.

A cold resulting from the virus alone is always mild in type and if it remains uncomplicated by any of the pathogens it can be easily cured by simple rest in bed. But unfortunately in almost all cases of infection by the virus this seems to add activity and virulence to any and all of the pathogens, residing in any of the air passages resulting in serious conditions. The reason that these cases vary so much in symptoms, character, virulence and sequellae is on account of these pathogens, which cause the secondary or rather the accompanying infection, for whenever the virus sets up an inflammation in any part of the air passages, the pathogens almost certainly and immediately become active and the type and character of the resulting "COLD" depends upon the type or types of the active pathogens. For illustration, if the influenza bacillus is present we have an attack of influenza; if strepticocci are present a streptococcic sore throat, etc. If the pneumococci are present we may have a case of pneumonia resulting, or other troubles from other pathogens that may be present.

In light of these facts it is not surprising that vaccine therapy, both prophylactic and therapeutic, has been so disappointing for it can be readily seen that our present vaccines can only have an effect on the really secondary infection and can not at all affect the primary infection by the virus. However, Dochez and his associates at Columbia University are working on a combined vaccine, or rather a double vaccine for the pathogens, which are usual habitants of the air passages. This last component will be somewhat like our present vaccines for colds. I believe that we can confidently expect much from this new double vaccine after it has been successfully developed which we may look for in the near future.

Of course, from our present knowledge all cases of colds should be segregated, but this is impractical and can not possibly be effected, and while all patients should be put to bed or at least confined within the house, it is very frequently impossible to do either with our mild cases, so that we must perforce content ourselves with doing our best to treat the cases the best that we can and take such steps as we may be able to do to limit the spread of the infection, by instructing our patients to keep themselves from coming in contact with others as much as possible and to cough and expectorate in handkerchiefs and such like measures.

Probably most of the remedies in the pharmacopeia and many outside of it have been tried in the treatment of colds with more or rather less success. I think that it will be agreed that if possible the patient should be put to bed or at least kept within the house. There should be an iniial purge, I prefer calomel followed by oil, small doses of aspirin and quinine and other drugs only as indicated, light, nutritions diet, no exposures and as near complete rest as possible.

Until the new vaccine is developed I do not think that we can expect much from vaccine therapy unless some of the pathogens become so virulent that specific vaccine therapy might be resorted to.

Mississippi State Medical Association

ORGANIZED 1867

Leon S. Lippincott, M.D. .... Editor
D. W. Jones, M.D. .... Associate Editor
G. S. Bryan .... Associate Editor

COUNCILORS

J W. Lucas, M.D. .... First District
L L. Minor, M.D. .... Second District
R. B. Caldwell, M.D. .... Third District
Thomas J. Brown, M.D. .... Fourth District
W. H. Watson, M.D. .... Fifth District
H. Lowry Rush, M.D. .... Sixth District
J Gould Gardner, M.D. .... Seventh District
W. H. Frizell, M.D. .... Eighth District
D. J. Williams, M.D. .... Ninth District

Papers and news material for publication should be received not later than the fifth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Box 303. Vicksburg. Mississippi.

"THE CHILD—THE RESPONSIBILITY AND PRIVILEGE OF THE PHYSICIAN, STATE AND NATION"*

Harvey F. Garrison, M.D.
JACKSON, MISS.

My Fellow Physicians, Citizens, Ladies and Gentlemen:

I bring you greetings, good will and personal felicitations. I am glad to be with you and to be one of you. I am justly proud of this noble humanitarian group of earnest men and women.

I appreciate this opportunity to appear before you and to bring to your attention my subject: "The Child—A Responsibilty and Privilege of the Physician. State, and Nation."

Children usually come into the world one at a time, and even if they do occasionally come as twins, and more rarely as triplets, every one of them brings his own problems. Nature evidently intended that they should be handled singly, and not in mass. They are happiest and make the best development that way, and yet, these little messengers of love and peace almost have to have the companionship of other children to bring them up right.

Furthermore, little folks are little folks for a long time, even after their bodies are of large size, because the mind continues to expand. In our day men are counted mature at 21 and women at 18, but the divine regulation of the affairs of the Jewish people fixed the maturity of men at 30 years, and that is about right. He is then in possession of his full powers.

The way it works out now, a man develops for thirty years, works for thirty years, decays for ten years, and dies at seventy, wondering why it took so long for him to get ready to do so little. Nearly half his life is spent in getting ready to do something.

The proper development of the child is one of the greatest of the privileges and obligations belonging to man. Since the child of today is the citizen of tomorrow, we do well to remember that the progress of the next generation depends very much on how we fulfill our **obligation.**

Psychologists tell us the first seven years of a child's life are its most important, because the mind of the child is very receptive to impressions. It is, therefore, imperative that, during the early impressionable years, the child should be trained toward a self-reliant development, for the value of wise guidance during those early years outweighs all other influences on character.

It would probably be best that the pattern of the father and mother should not be stamped too deeply in the impressionable child's mind, but that the child should be encouraged to develop his own original line of thought and action as much as possible. The instincts are the starting point of the mind, and the roots of those instincts lie deep in the subconscious mind and are part of the ancestral inheritance; they are the foundation on which the future is built. It is, therefore, necessary for parents to understand the right guidance of the instincts in order to develop fine men and women.

The growing child has many inherent rights. The community is under obligation at least in a large way to supply the means and the opportunities for the proper exercise of these rights.

In years to come when the history of this age is written by the impartial thinker, who at that distance of time may be able to gain a right perspective and may then be able to say which were the most striking features in social development, it may well turn out that he will point to the birth of the interest in Child Welfare as being among the events of first importance.

So let us take first things first. The world needs better men and women—good as those of the present generation may be. Let us begin with the young, the boys and the girls, keeping them in health, sobriety, integrity, virtuous manhood and womanhood of the noblest stamp.

---

*President's Address, presented at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 11, 1937.

Socrates has said: "Only by learning to think aright we learn to do well." I believe that every community should give serious thought to the subject of Child Welfare, so that it may be able to do the very best for the children. Some have been placed in the world under woefully unsatisfactory conditions.

Once it was recognized that the high rate of mortality among children was largely due to the ignorance of what was necessary for the health of the child. True, it is no new thought that "of all good gifts the best is health." But that the whole question should be viewed from the medical aspect and from that aspect alone, is a mistake; for the prevention of disease is probably as much dependent on good environment as anything else.

So let us briefly view the situation from its different standpoints. The child must develop physically; it must develop mentally; it must develop morally.

The physical effects of a wrongly developed childhood are: arrest of growth, puny, stunted stature, anemia, thin, emaciated limbs, sunken cheeks and hollow eyes; and diseases of all kinds—of the lungs, of the joints, of the spine—for the arrest of development does not necessarily mean more arrest, but very often means malformation.

The mental effects are likewise an arrest of mental development; and this, too, may mean not only a step forward but a development in the wrong direction. The brilliant but short-lived intelligence of the newsboys of our cities, their sinister anticipations of world knowledge, their seeming ability to play the game of life on a par with adults—we laugh at and applaud; we often fail to look beyond the moment, or count the cost they pay.

And the moral effects, as is to be expected, are of the same character-loosening of family ties, roving the streets, familiarity with vice and the haunts of vice, a starting independence before the moral nature is prepared to maintain independence, a process of selection so trying that while sometimes it leads those subjected to it to distinguished achievement, more often it leads to ruin.

Will Rogers said: "I'm mighty glad that many people in America are taking up child welfare work. Being a ranchman and farmer, and also a child owner, I have often wished that when one of my children got sick, I could wire or call up some government expert and have him come look after them, like I can do if one of my cows or pigs gets some disease."

"If your fertilizer is not agreeing with your land, the government will send a specialist, but if the food is not agreeing with the baby, why, we have to find out what's the matter ourselves."

In safeguarding the education of the next generation, you will be not purely altruistic either. If you care for your own children, you must take an interest in all, for your children must go on living in the world made by all children.

There is no asset in the state that has greater value and broader potentialities than the childhood of the state. Even though rich in various types of resources none of them surpasses in value or greatness the boys and girls or the human resources hidden in the boys and girls. No one can tell at any time just what a boy or a girl might be. In fact, no one can ever tell just what any particular boy or girl will ultimately mean to the state, yea, even the nation!

Every child has a right to be well born. By being well born I mean that every child is entitled to have an absolutely pure blood stream. In order that he may have pure blood and be undefiled before the world it is necessary that he have pure blooded ancestors. Much of the sorrow and grief of the world is due to the impurity of blood that is inherited by the rising generation. It can be justly and rightly said that American people in general take a great deal more pains with their livestock in raising pure blooded animals than they do in rearing their children. If science has proved, as we believe it has, that by careful breeding and careful selection genuinely thoroughbred and pure blooded stock can be produced, then it follows that America could also have a prize-winning nation of people if it would but utilize the rules and laws of science with humankind as it does with the lower animals. God forbid that America should continue to do other than to raise a pure blooded generation of men and women. Every child, without question, is entitled to this right of being well born.

Just now we are seriously concerned with many and difficult problems. We are attempting to re-establish upon surer foundations our educational, industrial and political institutions. We are addressing ourselves to conservation, soil erosion, reforestation and a multitude of things that concern the large interests of our people. In matters that concern culture we have made distinct advances. All these have their reasonable and proper place; what about our chief problem—the care, nurture and training of the youth? What kind of a future are we building for our country? Hog cholera and the foot-and-mouth disease of cattle often occupy a larger place in our debates and legislation than the vital concerns of youth and its proper development.

The increase of juvenile crime, with its attending tragedies and high costs, indicates that fundamentally something is radically wrong in our methods. We are expert in many things; we are bunglers when it comes to that which is the most vital—the proper training of youth.

To parents more than to all others is this task committed. There is no substitute for moral and spiritual training in the home. So great in God's estimate was the value of child life that when asked, "Who is the greatest in the kingdom of Heaven?" Jesus answered by calling a little child unto Him and said that the gifts and qualities of such were the prerequisites for fitness to the highest attainment. In this statement is implied the high esteem He placed upon child life. If the child is father to the man, the need to safeguard it against the ills of life and to fit it for its trials and problems makes the period of its preparation a matter of primary importance.

Every child has the inherent right to be well educated. Education in its broadest sense pertains to the development of all the powers of man; in its more restricted sense it pertains to the development of one's mental powers. Ordinarily in discussing the education of a person, the period being referred to is limited to the years spent in school, extending from the kindergarten or first grade through the university and the professional schools. From the broadest viewpoint, however, education begins at birth and continues throughout life.

Well-bred, well-fed, well-led, and well-wed. These four "wells" have depths and diameters that are beyond computation. The relations of breeding, feeding, leading and marrying to parentage are much simpler than many writers would have us believe. They are the original, divinely given obligations and duties, and are reasonably performable when rightly thought about and made into parental objectives. They may not confer complete happiness, but we commend them to wide-spread consideration.

We all should be more concerned about the health of the children. Health is the essential element in living a successful and, therefore, a happy life. All possible care, all provision necessary, all effort, are due the children in this matter of health.

One point many of us overlook. Unless the mothers of the children are safeguarded and protected and helped so that their health is as nearly perfect as may be, it is difficult for the children to acquire that health which is their birthright. The mother's health comes first, and the health of the household is added unto it. A sick mother, an over-worked, nervous, weary mother can not establish health in her household. Rather the contrary.

Just as we have wisely applied the findings of science in other fields, so must we apply them for the benefit of our children. I think we will all agree that the health of our children is worth any price, and that in so far as the physician and the community can do so, they should see to the environment of the child, so that the water and food will be pure and there will be no unnecessary exposures to the micro-organisms causing disease. Our knowledge of nutrition is complete enough and our food supply is ample, so that ill-nourished children are a community responsibility.

Either the communities will rise to that responsibility and discharge their duty or America will suffer for generations to come. In the circumstances, society has a compelling obligation. And again I repeat: the health of the mothers of the nation is the source of the health of its boys and girls. If the mother is ill, the home is bound to be disorganized. She is the hub upon which the domestic circle revolves.

Physicians, public health officers and welfare workers unite to appeal to the public conscience for the future of the race as it is personified in mothers and babies. They echo the old cry, expressive of the best ideals of manhood, "Women and children first." It is a stirring summons and will not be sounded in vain.

In summarizing this part of my address I would say:

Among the rights of children are these regular health examinations by a competent physician; dental examinations; instruction in health and safety; adequate sleep, food, and play; guidance in choosing an occupation; some form of religious, moral, and character training; protection against "labor that stunts growth, either physical or mental, that limits education, that deprives children of the right of comradeship, of joy, and of play." Special care should be provided for orphans and for children handicapped in mind or body. "Every child is entitled to feeling that he has a home. The extension of services in the community should supplement and not supplant parents."

Dr. Jacobi, in 1869, in the first presidential address delivered before the American Pediatric Society, said:

"Unless the education and training of the youth is carried on according to the principles of a sound and scientific physical and mental hygiene, neither the aims of our political institution will ever be reached nor the United States fulfill its true manifest destiny . . . . of raising the standard of physical and mental health to possible perfection."

The pediatrician who would share in the noble aspiration of Jacobi must be a teacher, an adviser. This function devolves not alone on the pediatric instructor in colleges and hospitals and in public and child welfare agencies, but decidedly on the practicing pediatrician, the family adviser, in all questions concerning the well-being of children.

The pediatrician in private practice meets the more intelligent class of parents, those who eugenically offer the best hope for the physical, mental and social progress of mankind, and also the parents who are best equipped to accelerate the propaganda for child betterment. As an educator, his opportunities are exceptional. The scope of his teaching must extend beyond the physical attributes of his patients to include their mental and emotional natures, their total functioning. We must instruct the parents in physical and mental and social and emotional natures, their total functioning. We must instruct the parents in physical hygiene, but we should also impress on them the importance, to their children and to children generally, of early character building, of laying the habit and behavior foundation of useful community life.

Quoting Dr. Jacobi again: "It requires physcal and mental education to fertilize the soil for the evolution of morals. Thus the physician and particularly he who makes pediatrics his special study, is a pedagogue by profession."

Expert guidance is vital. If it is conceded that a finished product such as a finely adjusted, thoroughly tested static motor requires constant inspection and care by trained engineers, would it not seem more important that skilled physicians are more essential when the immature, dynamic machine in the child, is being molded into a very definite personality.

Intelligent parents feel the need of a better understanding in the guidance of their children, and unless their physicians volunteer aid, they may seek help from non-medical sources, perhaps assuming rightly, in some instances, that their medical advisers are uninterested, too busy or incapable. Some of the agencies to whom the parents appeal are capable of giving helpful service relative to the particular behavioristic abnormalities of which the elders complain, but seldom do they offer all-embracing counsel. Only in a rare instance is the advice based on thorough studies of the child's physical, mental and emotional history, and of his present and former environment and training. As a rule, the child as a unit is not thoroughly appraised, and the advice often reflects the bias or the habit thought of the individual consulted, and relates to only one symptom or group of symptoms.

With many of us specific and constitutional diseases are decreasing; mental aberrations are not decreasing. Detection of the factors that lead to mental ill health might check the ravage. Do pediatricians and other physicians pass the responsibility to others when the mantle fits perfectly on their own shoulders? Are there so few understanding parents because there are so few understanding pediatricians? Are the diseases and difficulties that exist so needlessly during childhood due to the rarity of the pediatrician and other physicians who may be designated "the child's family adviser?"

My simple plan is to urge that physicians become more conversant with the educational, social, psychologic and psychiatric phases of child health, so that they may become worthy preceptors and consultants in the homes—family advisers for children—and so that they may remain leaders in all activities directed toward the promotion of child welfare.

What men and women do today and tomorrow and keep on doing throughout the year, year after year, determines their future, physically, mentally, and morally. Not merely that, but it determines the future of their offspring. It does not end even there. Each succeeding generation suffers the accumulated results of the wrong habits of those who have gone before. For the sins of the parents are visited upon the children unto the third and fourth generation. By the time the fourth generation is reached, the degeneracy becomes so marked that propagation ceases and the family tree dies. Again and again this has been demonstrated in the history of families. Follow the drunkard whose son and son's son were also drunkards for four generations, and you will find the family has about disappeared. The same may be said of the opium fiend, and to a limited degree, some of the more modern habits of our younger people—for instance, tobacco use, by many of the young girls, who are to become the mothers of the children, many of whom will eventually become the leaders in the government of our states and nation.

If men and women were alone the sufferers from their wrong and vicious habits, it would be serious enough, but that the accumulated results are passed on from father to son, generation after generation, makes it a problem which should certainly receive our most careful thought. "What sort of ancestor am I going to make?" is, therefore, a question each one should ask of himself repeatedly.

What we really need and really must have, if we are to cope successfully with life's problems, is as understanding of the civilization in which we live—not simply of books and our immediate environment. We must understand our civilization historically, geographically, economically, industrially, politically, and sociologically.

In our schools we still give anywhere from eight to twelve years to mathematics. In school, we study algebra and geometry, while the world struggles with taxes. One might live to be a hundred and never encounter a problem in geometry, while no adult can live in modern times without encountering the problem of taxation. But we still ignore it as a curriculum problem, except in a cursory way.

While we have been busy putting every boy and girl through high school, the world has participated in the most comprehensive and terrible war in all history. We have seen vast stores of food stuffs and clothing materials unused and unusable from economic reasons, while on the other hand we have great armies of starving men, women and children. Although the present national administration is doing much toward solving many of our economic problems, for five years we have known unemployment, suffering from poverty, and incredible taxes, because we have not known how to manage our economic affairs. It would seem, therefore, that something is needed in the education of the masses more than we have heretofore called education.

America has had to work so hard in conquering frontiers that it has never learned the solace and stimulation of the cultural and pleasure side of life. Until this is taught to all our pupils, it will not become a part of the creative life of our nation.

There is nothing more disastrous than a general lack of knowledge and interest in government. Whether we go to college or not, every person should be equipped to take an intelligent part in political affairs; equipped to make his own judgments in voting, in holding office, and in discussion. This can not be left to college courses, because the majority of our citizens never go to college. We shall never attain our loudly proclaimed objective of universal education in a democracy until we have learned discrimination in that educational plan and change it to fit a changing world.

The majority of our boys and girls will be artisans, housekeepers, farmers; and all will be citizens. Their work demands something more than college entrance requirements, and it devolves upon their elders to see that they get it.

It would take a library to cope fully with the gigantic stride leading to the complete emanicipation of humanity from the ills that beset them. If the people were properly educated first in the primary schools and later by the press about what the medical profession could do for them with the modern methods of prevention and cure we have today, they would not be so slow in demanding this protection, and business men and women would realize the unnecessary cost of illness of the workers in every business.

One of the outstanding contributions of medical science has been the reduction of the death rate. The following statistics reveal some results of what has been accomplished in Mississippi:

	1921	1926	1935
No. Deaths from Typhoid Fever,	348	390	61
No. Deaths from Smallpox,	15	4	1
No. Deaths from Diphtheria,	364	122	93
No. Deaths from Malaria,	963	409	531
No. Deaths from Tuberculosis,	1956	1862	1135

PER CENT REDUCTION IN DEATHS
1921-1935

Typhoid Fever,	82.4
Smallpox,	93.3
Diphtheria,	74.4
Malaria,	45.8
Tuberculosis,	42.0

There has never been a time when the human race, the nations of the world, and the profession in particular needed intelligent, careful, thoughtful common-sense leadership as it does today. Therein lies a challenge to all physicians to bring forth the best, the most substantial traits which they possess and apply them to future problems.

The medical profession has done more for the race than has ever before been accomplished by any other body of men. These gifts to the people have come in the form of vaccination, sanitation, anesthesia, antiseptic surgery, the science of bacteriology and the art of therapeutics.

For devoted service, for the highest expression of generosity and good will, the physician occupies a place quite incomparable. The story told by Ian Maclaren in the "Bonnie Briar Bush" of old Dr. McLeod is not exaggerated or overdrawn. It is a tale that may be duplicated in any community. One must believe concerning men of this type that they are motivated by the highest of impulses, and that their ministry is associated with that of the Master, who never turned away from those who were bruised and broken in body.

Florence Fisher Parry, in writing of physicians says:

"Nothing can take his place—not priest nor minister nor all the clinics that science can provide. There is a rapport and a confidence between him and his patient which has been known to accomplish miracles, and restore to the breasts of mothers, babies about to die, and to the arms of lovers, beloved turned back from death. There's something about the very presence of the doctor that casts out fear, melts apprehension. breaks down suspense, performs the simple miracle of faith."

Preventive medicine dreams of a time when there shall be no unnecessary suffering and no premature deaths; when the welfare of the people shall be our highest concern; when humanity and mercy shall replace greed and selfishness; and it dreams that all these things will be accomplished through the wisdom of man.

Preventive medicine dreams of these things not with the hope that we, individually, may participate in them, but with the joy that we may aid in their coming to those who shall live after us.

As I speak to you, I feel very much like a guide in a museum trying to show to a group of visitors the treasures of the building, but provided with only a small box of matches in the way of light. He would strike a match, hold it for an instant before a picture or a statue, or a case of jewels, and then it would flicker out, and another match, in the same feeble way, would provide just the hastiest glimpse of another beautiful and valuable object. So I, in trying to tell you of a subject which is as broad as the world in which we live, have only given to you a bare and rather kaleidoscopic introduction. I have done it with the hope that something that I have said will make you want to know more and to follow through some of the roadways of thought to which I have barely pointed.

With this word I come to my conclusion. You remember that old custom of the Monks of Aberdale. When they came to a house and asked for alms or food or shelter, if it were denied them, they were won't to raise their hands with cursing gesture and their voices in, "Maledicite! Maledicite!" But, if they received their dole, the gesture was reversed and in their softest tones they spoke gratitude in, "Benedicite! Benedicite!"

Thus those who do not know you, members of the medical profession of Mississippi, it must be who judge you wrongly and howl maledictions. I, who have known you, I who have felt of your favor, who have been warmed by your kindness and inspired by your confidence in permitting me to serve in every capacity of honor that could be conferred by the medical profession of this state; I who have gained a new respect for your power and even yet a greater estimation in your gentleness—I pronounce my humble, but believe me, heartfelt, "Benedicite! Benedicite!"

PRESIDENT'S ADDRESS TO THE HOUSE OF DELEGATES, MISSISSIPPI STATE MEDICAL ASSOCIATION*

Harvey F. Garrison, M.D.
JACKSON, MISS.

My Fellow Physicians and Members of the House of Delegates—I greet you with good will and personal felicitations.

---

*President's Address presented at the Thirty-Fourth Annual Session of the House of Delegates of the Mississippi State Medical Association, Meridian, May 11, 1937.

I want to say what I am sure is in the heart and mind of all of you, that it is good for us to be here and to share in this very congenial fellowship, a fellowship that draws us all around one great common cause for a very worthy and a very important purpose.

I sincerely appreciate the impulses and splendid motives that actuate this occasion. "Behold how good and pleasant it is for physicians to dwell together in unity."

When Maurice Egan was United States Minister to Denmark, it was his custom to go through the provinces once a year lecturing on American Literature. One night when the king and queen of Denmark were dining at the American Legation, the king said:

"Mr. Egan, I receive agreeable reports of your lectures in the provinces. Do you use a different lecture every time?"

"No, I always use the same one, Your Majesty," the Minister answered.

"But what do you do if people come a second time?"

To which Mr. Egan responded, "They never come a second time!"

I am glad to see so many of you who were at our last meeting of the house of delegates.

In my address to you I want to be like the manufacturer of motor-car tires who was the guest of a gathering of commercial men. Responding to a toast, he said:

"I have no desire or intention to inflict upon you a long speech, for it is well known in our trade, that the longer the spoke, the bigger the tire."

Let me say a word of thanks to my fellow officers and committees throughout the state, for the help and support they have given me during the past year. Throughout the year, full of problems and new activities as it has been, no one has refused the call of service to our profession. As I have gone throughout the state attending conventions, and visiting medical associations, I have been received with such a loyal and affectionate spirit that my heart is full of gratitude. No one need fear for the future of an association in which common aims and personal ties are as strong and as warm as they are in ours.

I have enjoyed the welcome, the fraternal greeting, the glad hand, the pleasant smiles, the ready sympathy, and the unmerited hearty fellowship of your great friendship.

I ask of you the same loyalty and cooperation for my worthy successor, Doctor W. L. Little, of Wesson, Mississippi, that you have so graciously accorded to me. We congratulate Doctor Little on his elevation to the presidency of our state association and I pledge to him and to you my personal allegiance in every forward movement for the welfare of organized medicine and the alleviation of diseases and suffering of humanity.

More and more as we struggle for higher aims, I see the truth of what John Stuart Mill so beautifully said:

"All the grand sources of human suffering are in a great degree, many of them almost entirely, conquerable by human care and effort, and though their removal is greivously slow, though a long succession of generations will perish in the breach before the conquest is completed, yet every mind, sufficiently intelligent and generous to bear a part, however small and inconspicuous—will draw a noble enjoyment from the contest itself which he would not for any bribe in the form of selfish indulgence, consent to be without."

Perhaps your great-great-grandfather, was a doctor, but he never went to medical school. He was a blacksmith who bled people and pulled teeth. Perhaps your great-grandfather was a doctor and graduated from a Class A school in 1821. He bled and he blistered and he puked and he purged—and this was about his armamentarium. He didn't even have ether or chloroform.

Perhaps your grandfather was a doctor and graduated from a Class A school in 1857. Bacteria were unknown. His appendicitis patients died of "cramp colic" and "locked bowels." He didn't know that tuberculosis was communicable. He did not have a fever thermometer.

Perhaps your father was a doctor and graduated from a Class A school in 1884. Diptheria was rampant and deadly, and so was typhoid fever. He did not have vaccines, for them, nor thyroid extract, nor adrenalin, nor pituitrin. Blood transfusion was unknown. He didn't even have an x-ray. Radium had not been discovered. He did not have local anesthetics. He could not even take a blood pressure. Pathological and clinical microscopy were just beginning. He didn't know that yellow fever was transmitted by mosquitoes, nor had he heard of hookworms.

Perhaps you as a doctor graduated from a Class A school in 1900. You did not even have insulin for diabetes, nor liver extract for pernicious anemia, nor scarlet fever serum, nor the malarial treatment for paresis, nor a host of other things. Insulin and liver extract, for instance, are both veritable epics in man's struggle against disease. The public, fed on mass production, wants an epic a week at least.

Progress in medicine was dramatized in Atlanta, Georgia, before the members of the American College of Surgeons at a community health meeting of its Southern Section recently when Doctor Bowman C. Crowell, of Chicago, cited modern medicine's "seven wonders." They are: immunity through vaccines; pain relief through anesthetics, drugs, gases; avoidance of infection in operations through antiseptics; knowledge of food values; discovery of the germ-killing power of sunlight; correction of organic deficiency through administration of healthy organs from animals; elongation of life span.

Medicine, like every other art, is in a constant flux of evolutionary change. Fresh vistas are ever opening; old truths presenting new, unexpected faces. We are living in an age of immense, incalculable mental adventure, and it is rather wonderful to be allowed to share it.

The science of medicine made onward strides during the past year.

Protamine insulinate, called the "most valuable discovery in the treatment of diabetes since the original discovery of insulin," was developed, for use together with ordinary insulin in treating severe diabetes, by Dr. H. C. Hagedorn, and associates of Steno Memorial Hospital, Copenhagen. Continuous use of the stomach tube to reduce internal pressure in the distended abdomen in cases of acute intestinal obstruction and other severe abdominal conditions was devised and its successful use reported by Dr. Owen H. Wangensteen, of Minneapolis, Minnesota.

Better protection against dangerous x-ray burns through use of a baffle screen which deflects secondary electrons in the x-ray beam has been devised.

Neutron rays are more effective than x-rays in killing tumors in animals and may prove more potent in destruction of cancers in humans.

A new strain of yellow fever virus has been isolated by scientists promising more effective vaccination against yellow fever.

A new hazard from yellow fever was discovered when scientists of the Rockefeller Foundation's International Health Division found that Brazilian jungle fever is yellow fever and that other mosquitoes besides Aedes Aegypti can carry the disease.

A chemical explanation of heart failure as a disturbance in the breaking down and rebuilding by individual heart muscle cells of phosphocreatine was worked out by Drs. George Hermann and George Decherd, University of Texas School of Medicine.

Important function of the cortex of the adrenal glands is to regulate the amount of potassium in the blood and thus keep the body from poisoning itself.

Once-fatal Addison's disease, du eto injury or disease of the adrenal glands, may be successfully treated without the use of cortical hormone by giving a diet low in potassium and containing proper amounts of salt and um citrate.

Successful transplantation of adrenal gland tissue from a woman suffering from virilism to a man suffering with Addison's disease restored the man's health and prolonged life.

First operation on the pituitary gland to refeminize a "bearded lady," with successful results lasting one year, was reported by Dr. H. Lisser, University of California Medical School.

Apparent cure by x-ray treatment of two cases of the rare disease, pituitary basophilism, caused by tumor of the pituitary gland, with restoration of the patients' health and transformation of their personalities, was reported by Dr. Merrill C. Sosman, Peter Bent Brigham Hospital, Boston.

Vaccination against ivy poison by subcutaneous injections of the irritant from poison ivy plants accomplished in a group of CCC men by Lieutenant Colonel J. M. Blank, United States Medical Reserve Corps, and Doctor Arthur F. Coca, Pearl River, New York.

Influenza can be more widely spread through the air than previously supposed, but ultraviolet light kills the influenza virus suspended in droplets in the air.

Ultra-violet light sterilization of the air in operating rooms was introduced as a means of successfully reducing infections of surgical wounds.

Incubation of egg white mixed with potassium bromide provides a remedy that markedly reduces the blood clotting time in hemophiliacs and continued use of the remedy may enable them to lead normal lives without danger of hemorrhage from slight injury or exertion.

Sinus infections can reach the lungs via lymphatic glands of neck and chest.

Test for predicting the outcome of operations for relief of high blood pressure, made by observing the effect on blood pressure of injection of the anesthetic, sodium pentathal, was devised by Drs. Edgar V. Allen, J. S. Lundy and A. W. Adson of the Mayo Clinic.

Medical science is making notable progress. It is gratifying to the world and particularly to suffering humanity that its progress continues.

However the modern doctor has become a modern Hamlet. He is facing the dilemma that confronted his Shakespearean prototype three centuries ago. "To be or not to be? That is the question." His professional practice, even his economic existence, are at stake in a stricken and changing world. He is sailing a battered ship on a stormy sea.

We are disturbed by quacks on one hand and threatened by state medicine on the other.

Quackery in the treatment of disease has flourished since the first dark days when hairy man with his underslung jaw stole out of his caves to club food animals to death, to gather wild berries and roots and to practice the incantations that were supposed to cure the sick or to heal the wounds of warriors in battle. Knowledge of the prevention and cure of diseases has increased mightily. The days of incantations of voodoos, of witch charms and of cauldrons boiling at midnight in dark forests, have passed; but the quack, cashing in on the credulity of the sufferer, is still with us.

A quack was making a speech bally-hooing his wares. "I have sold 6,000 bottles of this marvelous remedy," bellowed the quack, "and not a single complaint have I received." I ask you,———what does that prove?"

"That dead men tell no tales," shouted the man in the crowd.

Recently, our state board of health had an experience which was sufficient to shock the very foundation of intelligence! They attempted to prosecute one of the most brazen quacks that this, or any other state has ever seen. Some of the leading citizens and one of the state's outstanding criminal attorneys defended the quack. The courts set him free and therefore permitted him to continue to carry on his quackery, to the disgust and chagrin of the medical profession. Not many, but far too many, of such cases have occurred in this state. Is it not strange that people, many of whom may be classed as prominent, intelligent and progressive citizens, would not only permit an outrage on justice such as this, but would actually encourage it, when, if they so desired, they could have sought and obtained the counsel of some of the most honorable and leading physicians of this state, who are citizens of that particular town, where this quack was operating.

Scientific medicine, as we know it today, did not emerge as one great light upon mankind; it has been a slow, painful struggle from out of the abysmal pit of fear, superstition and ignorance. To separate man from his false curative beliefs, has been the never ending and difficult task of orthodox medicine.

It is the supreme obligation of the medical profession to provide the public with medical care of the highest possible quality, and to protect them from the results of inferior service.

In this connection,I am happy to say that the medical profession of this state, individually and collectively have always given freely of their time and talent to provide the means to insure the best service to safeguard the health and happiness of our citizens. This Association has on record many outstanding examples of what it has advocated and accomplished to protect the well and to provide the means to care for the sick and wounded in this state. Some outstanding examples of your accomplishments may be mentioned here.

Our State Tuberculosis Sanatorium had its birth in this Association in 1915, when the House of Delegates went on record as favoring the establishment of such an institution and appointed a committee to work out the necessary plans to be presented to the legislature, which later resulted in the establishment of the present institution. This institution stands today as one of the outstanding accomplishments of this Association. The very unique law, governing the appointment of the members of the Mississippi State Board of Health, also had its birth in this Association. This law is considered to be one of the most progressive and far reaching measures of its kind ever enacted into law by any legislative body in the United States. The passage of a law by the present legislature providing measures to offer hospitalization to the poor, was a very progressive step in the right direction, which also had its birth in this Association.

Many other examples might be mentioned, but these are sufficient to show some of the accomplishments of this Association in the interest of the health of our citizens. May I suggest at this time, for your consideration, at least one other measure which could be provided to care for certain classes of diseases, not already provided for? Mississippi needs and should have, an isolation or contagious disease hospital to care for the class of patients who need special care and treatment, that can not be provided for in our privately owned hospitals. For instance, the proper care and treatment of the malignant types and complications of scarlet fever, cerebro-spinal meningitis, diphtheria, poliomyelitis and many others of a similar nature which are not wanted on account of the very nature of the disease, and the danger of the spread of such diseases to other patients in the hospitals, which are privately owned and operated; nor would it be profitable or wise for such institutions to provide the necessary means to handle such cases. The State of Mississippi owns some substantial buildings and grounds which could easily be converted into a modern hospital, for the care and treatment of such cases and with the advent of good roads, this hospital so located, could be reached by automobile, from the most distant point in this state, in less than four hours. Would it not be wise and timely for this Association and this House of Delegates to offer some recommendations to the legislature looking to the establishment and equipment of such an institution where such cases may be scientifically and properly cared for to the end that many useful lives may be saved?

The medical profession will probably find it difficult to lend its approval to any plan or system of hospitalization insurance developed by any committee or group that *not only* fails to include representatives of the medical profession but thus far has failed even to give adequate opportunity to the medical profession to present its point of view in these matters. It is to be hoped that the American medical profession merits enough recognition from our government to cause that government to seek its advice and its assistance in the development of these plans from the very first step in the consideration.

It is now apparent that we are to have some form of hospitalization insurance in this state. I would not at this time intrude or indulge my opinion upon the House of Delegates in regard to the question of hospitalization insurance schemes as a whole. I will, however, venture this one thought, which I hope will fairly well state my position relative to the whole matter. I believe that hospitalization insurance schemes under the best control, to say the most for them, carry a potential threat or danger to the legitimate practice of medicine. Certainly any plan providing for control and management by laymen, would possess greater danger than if controlled by some form of organized medicine.

The profession should denounce unequivocally any plan seeking to use it as an instrument of industrial exploitation—as one means whereby earnings sufficient to sustain dignity of life and service — including medical service—are ruled out by quacknocrats bent upon "greater and yet greater profits for the few."

We have no sympathy with paternalism or unwarranted dependence on a grandmotherly state either in medical or commercial affairs. We are a staunch supporter of state rights, of local autonomy, of private initiative and neighborly cooperation. Bureaucratic administration is a menace to personal freedom and social progress and we may add also that it spells ruin to medical efficiency.

State medicine can not change human nature though it may alter relationships.. Independence in medical practice is as essential to the happiness and prosperity of doctors and to the advance of scientific medicine as independence in citizenship is to the welfare of government and this priceless independence gained by prodigious expenditure of blood and treasure should under all circumstances be sacredly preserved to the people of these United States.

Remember thou art thy brother's keeper—physically in the measures advised for the prevention, alleviation or healing of diseases; spiritually in the cheer thou bringest to heavy hearts and the courage thou givest to halting steps. So walking upright before man, mayest thou show thyself approved, thus journeying toward life's end, if not singing with the Psalmist, "my cup runneth over," thou wilt at least be sustained by the reflections of "a workman who needeth not be ashamed."

I wish you all the happiness and prosperity in the world. May your joys increase and your sorrows diminish. I have only one admontion to give you—one parting word of advice. It is this: Continue to accept your responsibilities like the noble men that you are. Shoulder your burdens and face the rising sun. The dawn of brighter days comes on apace. Do not turn aside from the path of duty.

PRESIDENT'S ADDRESS*

A. M. McCarthy, M.D.
Electric Mills, Miss.

In giving you an account of my stewardship as the eighth president of this association I can not bring you the glad tidings of such conspicuous accomplishments as has been the privilege of some of my predecessors, because this year's activities have been devoted to a consolidation of our position, so to speak, and a study of problems that will probably be carried to completion in the near future.

Among the several major problems that have confronted the hospitals of Mississippi during the past year, perhaps the most important has been the application of Senate Bill No. 223 which became effective last July and provided for an expansion of state aid to the community hospitals for the care of the indigent sick. The success that has been accomplished in the administration of this law has been due to the untiring, intellectual efforts of the State Hospital Commission and the splendid cooperation and patience exhibited by the administrators of all hospitals concerned. I wish to take this occasion to pay tribute to our Governor, the Honorable Hugh L. White, for the whole-hearted cooperation he gave the sponsors of the bill, by appointing from their ranks, three of the five members of this Commission. By this act he not only gave us a working majority but completely removed the apprehension that was so apparent during the days of its passage and has assured us that during his administration, at least, political influences will not jeopardize its idealistic features. Now that a working application of this law has been successfully established by those entrusted with the administration of its provisions, its future success will depend upon an intelligent cooperation of the whole medical profession of our state. The greatest danger as I see it, is a tendency to disregard its limitations. The sum appropriated is insufficient to care for all the indigent sick and it is intended that only those who are urgently in need of hospitalization and unable to pay for it, shall receive its benefits. If indigent patients are indiscriminately sent to hospitals for medical care, this procedure may soon break down the cooperative spirit of the few physicians that are carrying the load, and they, in order to be relieved of the excessive burden may be compelled to withdraw their hospitals from the field of application of this law, and thus tend to destroy the ideal motive of caring for the indigent sick in their home community. I believe that an extensive campaign of education concerning the purposes and limitations of this law is urgently needed. How to institute such a program is the question. It is logical to assume that the simplest method would be for each hospital to attempt to educate the public and physicians that feed the institution, yet I know that in some instances this plan has been attempted without much success. (I have tried to analyze the reasons for this failure and have concluded that it is due mainly to the lack of interest on the part of many trustees and the lack of sufficient administrative personnel in many of our hospitals to properly investigate the authenticity of the credentials that these patients present at the time of admission.) Because of the imposing authority invested in the State Hospital Commission I believe that this body can render a valuable service to all hospitals participating in the application of this law if they would accept the added responsibility of sponsoring this program, and at regular intervals remind the trustees and physicians of their obligations to see that no undue advantage is taken of its provisions. I recommend that this association will consider during this assembly the adoption of resolutions thanking the State Hospital Commission for its splendid work in the past year and at the same time submit this proposed educational movement for their consideration.

I am happy to relate that real progress has been accomplished in the past year in the maintenance of higher hospital standards. Here again the State Hospital Commission is deserving of a large proportion of the credit. The fact that our own secretary, Dr. L. S. Lippincott, was appointed secretary of the Commission, gave us a working relationship that has proved to be a blessing in disguise. The Commission adopted the Minimum Standards of the Association as the requirements for those hospitals receiving state aid, and thus for the first time in the history of the association we have had a compelling stimulus for hospitals to conform to these minimum standards. It is indeed encouraging to note that the majority of our member institutions have complied with every detail and others are developing their organization and equipment so that they will be able to receive their certificate of qualification in the near future.

---

*President's Address, presented at the Eighth Annual Session of The Mississippi State Hospital Association, Meridian, May 10, 1937.

Hospitalization insurance has been precipitated during the past year as an urgent problem for the Association. This was brought about by the development of a plan that compromised many of our members before the Association had an opportunity to give it adequate study. A special meeting was called last November to consider among other things, the essential features of this plan, to determine if the Association could lend its cooperation and support, but at the time, only the essential features of organization could be submitted to us, and without any definite details concerning the contracts with the insured or the hospitals, the Association was only able to recommend that the standing committee on "Fixed Periodic Payments for Hospital Services" study the development of this plan and report to us today their conclusions and recommendations.

During the past year we have been asked to study and express our reaction to proposed changes in the organization of the American Hospital Association which are expected to bring about a closer working relationship between the national association and the state provincial associations. I am fully in accord with many who believe that the American Hospital Association should be organized as a federation of state and provincial associations, governed by a representative house of delegates similar to that of the American Medical Association. As explained in a recent communication to all the hospitals, the American Hospital Association is incorporated under the Illinois law which prohibits turning control of the association over to non-members. Therefore, it is impossible to establish this ideal organization under its present charter, until all members of the state and provincial associations are also members of the national association. A compromise has therefore been proposed to establish the house of delegates, but to limit its function to an advisory and consultative capacity to the Board of Trustees which will remain the governing body. Although in my opinion this is not the ideal set-up, it will in reality serve the ideal purpose because I can not conceive of a board of trustees that will not allow itself to be influenced by such an imposing body. I believe that this compromise is only an opening wedge, so to speak, which will in the very near future create a house of delegates with legislative powers in the American Hospital Association. I would recommend that this association go on record today that it approves of these proposed changes and that it stands to consider any necessary changes in its constitution and by-laws to conform to the proposed changes in the organization of the American Hospital Association.

EDITORIALS

New Officers

A list of the officers chosen at the seventieth annual session of the Mississippi State Medical Association and the thirty-fourth annual session of the House of Delegates at Meridian in May is published elsewhere in this number. It is our wish here to extend congratulations and best wishes to those who have assumed the important duties of guiding the Association in a time of many rapid changes in the practice of medicine.

Dr. W. L. Little, Wesson, was installed as president. Long years of experience in organized medicine will prove most valuable to the Association. Dr. Little has been an active practitioner of medicine and a member of the Association for many years. He has served well on numerous committees including Public Policy and Legislation, Medical Education and Budget and Finance, and as a member of the State Board of Health. His administration is sure to be successful.

Dr. Joseph E. Green, Laurel, was elected president-elect. This is a deserved honor to a loyal member of the state association. Dr. Green has been active in the Association for many years and has served as councilor of the eighth district. During the coming year Dr. Green will be in charge of organization under the direction of the president and will direct and advise with the vice-presidents in this phase of their work. The election of Dr. Green should mean an increased membership.

Three vice-presidents were elected at the Meridian meeting, Dr. F. S. Hill, Grenada, representing the northern division of the state, Dr. Lawrence W. Long, Jackson, representing the central division; and R. F. Ratcliff, Lucedale, representing the southern division. All have been active in their component societies, and sections of the state. Organization under their direction should bring about definite further progress.

Dr. G. S. Bryan was elected associate editor and a member of the Publication Committee for two years. He is a past president, and has been long an active worker in the interests of the Association. His counsel and advice will mean much to the publications of the Association.

As expected, Dr. J. P. Wall, Jackson, was re-elected speaker of the House of Delegates. Dr. Wall is the first and only speaker the Mississippi State Medical Association has ever had and his wide knowledge of parliamentary law and kindly way of directing difficult situations as they arise has assured his continuation in this office for as long as he can be prevailed upon to serve. His statement last year in acceptance that he would serve as long as the Association wanted him was sincerely welcomed. The office of speaker requires long experience and special qualifications and it is the general feeling of the members of the Association that as regards the present incumbent it should be a life position.

Dr. T. M. Dye, Clarksdale, was the choice of the Association as secretary. Dr. Dye has served as secretary since 1918 and before that time had been president. He is probably better qualified for the office than any member of the Association and his election meets with general approval.

Dr. J. W. Lucas, Moorhead, Dr. L. L. Minor, Memphis, Rt. 4, and Dr. R. B. Caldwell, Baldwyn, because of outstanding efficiency and results obtained in office were continued as councilors of the first, second and third districts respectively. All have served the Association long and well.

Fixed Periodic Payments For Hospital Service

At the meeting of the Mississippi State Hospital Association in Meridian, it was decided to proceed with the organization of a plan for fixed periodic payments for hospital services in Mississippi. The Mississippi State Medical Association was asked to furnish a committee to act with the committee of the Mississippi State Hospital Association and so voted.

Non-profit hospitalization insurance organizations with first interest for patients are proving most successful throughout the country. Under these plans no individual or group makes a profit. Rates are based on the actual cost of hospital care and the necessary costs of administration.

At a meeting of the Mississippi State Hospital Association, Mr. A. E. Hardgrove, assistant secretary of the American Hospital Association, pointed out some of the features of successful plans as prepared by Dr. C. Rufus Rorem, director, Committee on Hospital Service, American Hospital Association. Inasmuch as non-profit hospitalization insurance is to be put into effect in Mississippi it would be well for all members of both associations to familiarize themselves with the facts brought out by Mr. Hardgrove.

A non-profit hospital service association is a corporation organized for the purpose of enabling persons and their families to budget their hospital bills. The corporation enters into contracts with "subscribers" who agree to make equal and regular payments to a common fund held by the association which is used to pay for necessary hospital service for subscribers or their dependents. The corporation also enters into contracts with "participating" hospitals which agree to provide certain specified services to subscribers, and to rely upon the subscribers' payments to the hospital service corporation for their remuneration. In the final analysis these contractual arrangements constitute a form of "insurance," and should receive the benefits of regulation by state departments of insurance or other public agencies which control insurance activities and hospital service.

Under the laws of some states non-profit hospital-service associations are regulated by departments of insurance through special enabling acts. These include New York, Illinois, Alabama, Mississippi, California, and Massachusetts. (Similar acts are under consideration in Michigan, Pennsylvania, Wisconsin, Georgia, Iowa, and Maryland, none of which now includes a non-profit plan with several "participating hospitals.")

In a number of states official agencies have ruled that non-profit hospital-service corporations are exempt from regulations of the department of insurance, and in these states group hospitalization plans have been organized under the general laws covering contracts for service. Such states include Connecticut, Delaware, District of Columbia, Kentucky, Louisiana, Minnesota, Missouri, New Jersey, North Carolina, Ohio, Tennessee, Virginia, W. Virginia. At the present time tentative plans have been made to bring hospital service associations under the Department of Insurance in Missouri and Kentucky, and possibly some other states.

The states not mentioned presumably require that free-choice hospital-service plans be organized under existing laws for "mutual insurance" companies. In Texas a recent ruling required that all free-choice plans be organized as mutual insurance companies and as such to be subject to regulation by the

State Department of Insurance.

The interests of the subscribers and participating hospitals in non-profit hospital-service plans require official recognition and appropriate regulation by governmental agencies. The following criteria or guiding principles are submitted by the Committee on Hospital Service of the American Hospital Association for such use as may be appropriate by the state departments of insurance or local or state groups which are sponsoring new legislation or new plans under existing laws.

I. Non-Profit Sponsorship and Control—

1. Boards of trustees should include adequate representation of hospitals, the medical profession, and the general public.

2. Trustees of the hospital association
   a. Should receive no remuneration for services in capacity of trustees or for professional or administrative services.
   b. Should not lend money to corporation.

3. No private investors should advance money in the capacity of stockholders or owners.

4. Initial working capital may be provided by individuals, hospitals, chests, councils, or other civic agencies, but should be repayable only out of earned premiums over and above operating expenses, payments to participating hospitals, and legal reserve.

II. Economic Soundness—

1. Annual subscription rates should be approved by the state department of insurance or other appropriate regulatory body.

2. Rates of payments to hospitals should be approved by the department of insurance or other appropriate regulatory body.

3. Groups applying for incorporation as non-profit hospital-service associations should accompany their applications with a list of "participating hospitals," which have agreed to serve subscribers in accord with definite contracts with subscribers and the hospital service association.

4. Initial working capital should be sufficient to carry all acquisition costs and operating expenses for three months after contracts first become effective, thus making premiums available in full for payments to hospitals during this period.

5. Premiums received should be definitely divided into special funds, each earmarked for special purposes, as follows:
   a. Hospital Fund: Payments to participating hospitals, (the amounts placed in the hospital fund should be sufficient to provide one day of hospital care per year per eligible person.)
   b. Reserve Fund: (Cash received as "unearned premiums" should not be regarded as part of "reserve.")
   c. Operating Fund: Acquisition costs and office administration.

III. Free Choice of Hospital and Physician—

1. Opportunity should be given for all institutions of standing in each community to become participating hospitals.

2. Contracts between associations and participating hospitals should not interfere with general hospital policies or relations to medical staffs.

3. Arrangements should be made for receipt of service in non-participating hospitals in case of emergency.

4. When all participating hospitals and others in the community are filled, a subscriber in need of hospitalization should be reimbursed for the amount which would have been paid on his behalf had he been hospitalized.

IV. Administration and Legal Regulation—

1. Employees of the hospital service corporation should be reimbursed by salary as opposed to a commission basis. A private sales organization should not be given responsibility for promotion on the basis of a percentage of premiums.

2. Uniform rates should be paid to participating hospitals for nominally similar services.

3. Payments to hospitals (whether on a per-diem or other basis) should be based on the costs of services provided to subscribers in hospitals of that community, district or region.

4. Funds of the association should be restricted as to investment by the same limitations applying to insurance company resources.

5. Statistics should be maintained and reported regularly to the department of insurance as follows:
   a. Number of subscribers (classified).
   b. Number of hospital admissions (classified).
   c. Number of patient days of care (classified).

6. Hospital service corporation should render annual financial and service reports to the department of insurance based upon accounting classifications determined from time to time by the department.

7. The department of insurance should not

be required to determine medical problems as to what constitutes hospital service.

V. Scope of Benefits—

1. Inclusions and exclusions of various kinds of hospital service should be determined in terms of the custom and agreements between hospitals and their professional staffs in their respective communities.
2. Emphasis should be placed upon the enrollment of employed groups as opposed to individuals or self-constituted groups, although self-employed persons should be allowed to join under proper restrictions.
3. Applications from subscribers should include statements as to general health but should not necessarily be accompanied by reports of physical examinations.
4. Each plan as a whole should cover its operating costs and payments to hospitals, and reserves, from the earned premiums. Various sub-groups of subscribers (for example, dependents or spouses) need not necessarily be "self-supporting."
5. Types of illnesses covered should include particularly the unpredictable categories.
6. Maternity cases and services might well be eliminated from the benefits during the first calendar year of membership and limited to a percentage of the cost.
7. Workmen's compensation cases should not be covered.
8. Hospital services should be as inclusive as practicable from the administrative point of view and when measured in terms of the annual subscription rate.

FIFTY YEARS AGO

ABSTRACTS FROM THE PROCEEDINGS OF THE TWENTIETH ANNUAL SESSION

Jackson, Miss., April 20, 1887

The Association convened in Twentieth Annual Session in the Representative Hall in the city of Jackson.

President R. S. Toombs, Greenville, called the meeting to order at 11 o'clock.

The session was opened with prayer by the Rev. H. F. Sproles, of Jackson.

Hon. Charles R. Hooker, in behalf of the physicians and citizens of Jackson, made an appropriate address, in which he referred to the advantages coming from our state board of health, which was a child of the Association. He referred to medicine dating back when Joseph demanded that his father should be embalmed. It was a God-like profession and called the Divine art. The Egyptian mummy was an example of proficiency of the healing art in early times. He alluded to Aesculapius, Galen, Jenner, Harvey and others, in the early history of medicine, as benefactors to their race. Col. Hooker presented the Association with two valuable works.

Resolutions that the thanks of the State Medical Association are hereby tendered to Col. Chas. R. Hooker for his interesting address of welcome, and for his beautiful and appropriate gift to serve as a nucleus of a library.

On roll call the following fellows answered to their names: Drs. Wm. Aills, P. T. Baley, J. W. Bennett, J. H. Blanks, T. T. Beall, T. E. Butler, J. T. Chandler, B. B. Carson, S. R. Dunn, D. M. Diggs, J. W. Ellis, F. L. Fulgham, N. L. Guice, F. H. Gulledge, H. H. Haralson, W. F. Hayer, O. A. Harris, R. E. Howard, Wirt Johnson, Robert Kells, R. S. Knox, B. F. Kittrell, John H. Lucas, L. W. Mabry, D. M. McGehee, J. L. Murrell, J. L. McLain, H. L. Morris, J. H. Maddox, S. L. Paine, Wm. Paine, C. A. Rice, L. Sexton, E. F. Shuler, J. A. Shackleford, A. G. Sinclair, R. S. Toombs, G. W. Trimble, W. E. Todd, W. S. Weisinger, L. M. Mays, R. T. Edwards, J. F. Hunter, B. F. Dule, C. S. Priestly.

Papers Presented

Erysipelas—Dr. W. A. Galloway, Jackson, Miss.

Uterine Surgery—Dr. J. A. Shackleford, Leota Landing, Miss.

A Case of Embolism—Dr. B. F. Zitterell, Black Hawk, Miss.

A Case of Ovariotomy, Presenting Some Features of Interest—Dr. W. F. Hyer, Holly Springs, Miss.

Case of Malarial Cachexia of Two Years Duration—Dr. N. L. Guice, Natchez, Miss.

A Few Suggestions on the Treatment of Diseases of the Eye, and Ear—Dr. J. L. Minor, Memphis, Tenn.

Chloral Hydrate as a Remedy in Two Forms of Acute Malarial Disease—Dr. T. T. Beall, Vicksburg, Miss.

Hereditary Progressive Muscular Atrophy—Dr. J. W. Bennett, Brookhaven, Miss.

Modified Phimosis Operation—Dr. T. T. Beall, Vicksburg, Miss.

Iritis—Dr. A. G. Sinclair, Memphis, Tenn.

Abscess of the Liver Treated by Aspiration and Incision—Dr. J. E. Halbert, Mound Landing, Miss.

A Case of Fracture of the Skull—Dr. B.

F. Duke, Lake Como, Miss.

Two Cases of Chronic Suppurative Inflammation of the Middle Ear, (Atorrhoea) successfully Treated by Boracic Acid—Dr. T. T.. Beall, Vicksburg, Miss.

Suppurative Hepatitis—Dr. G. L. Pope.

Report of Three Cases of Fluid in Pleural Cavity, and One Case of Extirpation of Testicle for Sarcocele—Dr. O. B. Quin, McComb, Miss.

Wound of the Head, With Considerable Loss of Brain—Dr. W. C. Lawrence.

An Unusual Sequence of Reduction of Dislocation at Hip-Joint—Dr. T. T. Beall, Vicksburg.

Fatal Issue from Intra-Uterine Injection—Dr. T. T. Beall, Vicksburg.

Epidemic Dysentery—Dr. W. E. Herring, Terry, Miss.

The Modern Treatment of Phthisis Pulmonalis—Dr. S. V. D. Hill, Macon, Miss.

Report of Two Cases of Urethral Stricture with Operation and Results—Dr. R. B. Carson, Durant, Miss.

Serious Result of a Trivial Wound—Dr. W. H. White, Brandon, Miss.

The Treatment of Pneumonia—Dr. H. H. Haralson, Forest, Miss.

Abscess of the Anterior Mediastinum.—Dr. A. L. Morris, Lena, Miss.

Heart Disease—Dr. E. L. McGehee, Woodville, Miss.

The Association adjourned to meet in Jackson the 3rd Wednesday in April, 1888.

DIRECTORY AND CALENDAR OF MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy First Annual Session and Thirty-fifth Annual Session of the House of Delegates, Jackson, May 3, 4, 5, 1938.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p.m.

Amite County Medical Society: W. R. Stewart, Osyka, president. D. H. Thornhill, Crosby, secretary. Meets with Wilkinson County Medical Society, Centerville.

Central Medical Society: L. W. Long, Jackson, president; Gayden Ward, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m., except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. E. Powell, Charleston, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clarke-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: I. W. Barrett, Clarksdale, president; N. C. Knight, Clarksdale, secretary. Meets second Wednesday each month, Clarksdale Hospital, Clarksdale, 1:30 p. m.

Delta Medical Society: E. T. White, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

Desoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, Rt. 4, Memphis, secretary. Meets first Monday of January, April, July, October, Hernando, 10 a. m.

East Mississippi Medical Society: T. G. Cleveland, Meridian, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: L. Costley, Meadville, secretary.

Hancock County Medical Society: A. P. Smith, Bay St. Louis, secretary.

Homochitto Valley Medical Society: Harrison Butler. Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: G. C. Jarratt, Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday, each month, Mississippi State Charity Hospital, Vicksburg, 7 p.m.

Jackson County Medical Society: W. J. Weatherford, Pascagoula, president; R. G. Lander, Pascagoula, secretary. Meets second Thursday of March, June, September, Pascagoula, 7 p. m.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Newton County Medical Society: V. L. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: R. G. Grant, Holly Springs, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: L. L. McDougal, Booneville, president; A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September and December.

Pike County Medical Society: J. L. Bauer, McComb, president; Elise Rutledge, McComb, secretary. Meets first Thursday, each month, McComb, 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R.F.D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Stone County Medical Society: Earl W. Green, Wiggins, secretary. Meets with Harrison-Stone-Hancock Counties Medical Society.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday, each month, Senatobia.

Tri-County Medical Society: D. T. Langston, New Hebron, president; R. B. Zeller, Hazlehurst, secretary. Meets March, Copiah - Lincoln Junior College, Wesson; June 8, Walthal Hotel, Tylertown; September 14, Riverside Hotel, Monticello; December 14, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president; H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: E. M. Butler, Centreville, secretary. Meets with Amite County Medical Society, Centreville.

Winona District Medical Society: P. B. Brumby, Lexington, secretary.

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION

Ninth Annual Session, Jackson, May 2, 1938

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary, Meridian: First Friday. each month 6:00 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital, Oxford: Third Wednesday each month, 7:30 p. m.

Charleston Hospital: First Thursday, each month, 7 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p.m.

George C. Hixon Memorial Hospital: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium, Amory: Third Thursday, each month, 8:00 p. m.

Greenwood-Leflore Hospital: First Thursday, each month, 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital: Second Thursday, each month, 7:00 p. m.

Houston Hospital:Fourth Friday, each month, 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p. m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p. m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 7:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.
day, each month, 2:30 p. m.

Magee General Hospital: Twenty-fifth, each month, 6:00 p. m.

Mayes Hospital, New Albany: First Monday, each month, 2:30 p.m.

McComb City Hospital: First Tuesday each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday, each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Hospital: Second Thursday, each month.

Northeast Mississippi Hospital: First Monday each month, 7:00 p.m.

Oktibbeha Hospital, West Point: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veterans' Hospital, Gulfport: Every Monday, Tuesday, Wednesday and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: *Third Thursday*, each month, 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

MISSISSIPPI STATE HOSPITAL ASSOCIATION

New Officers

President, Dr. A. Street, Vicksburg; Vice-President, Dr. J. P. Wall, Jackson; Secretary and Treasurer, Dr. Leon S. Lippincott, Vicksburg; Board of Directors, The above officers and Dr. J. Gould Gardner, Columbia and Dr. A. M. McCarthy, Electric Mills.

EXAMINATIONS FOR LICENSE

The Mississippi State Board of Health will hold examinations for license to practice medicine at the New State Capitol, Jackson, June 23 and 24, 1937.

Examinations on the first two years will be held on June 23. Applicants should send or bring certificate for verification.

Examination on last two years will be held on June 24. Applicants should send or bring diplomas for verification.

Application blanks may be secured by writing to R. N. Whitfield, M.D., assistant secretary, Mississippi State Board of Health, Jackson, Miss.

MISSISSIPPI STATE BOARD OF HEALTH

On April 16, Dr. Underwood spoke to the graduating class of Centreville Consolidated School, Collinsville, on, "Your Mind, Your Body, and You." During April Dr. Underwood also spoke to the North Mississippi Medical Society at New Albany on the interesting subject, "The Public Health Aspects of Tuberculosis," and to the Mississippi College Pre-Med Club on, "The Venereal Diseases."

On April 5, Eva Moore Adams, Supervisor of Health Education, spoke before the State Dental and Dental Hygienists' Association meeting on "Your Part in a Health Education Program," and on April 19, she addressed an interested group at the Jackson Business and Professional Women's Club on "Health Education."

Fifty-eight nurses from Mississippi attended the Southern Division of the American Nurses' Association meeting in New Orleans.

The following nurses were placed in counties during April: Miss Lena Mason, Jefferson Davis County; Mrs. Martha Parker, Holmes County; Miss Margaret Smith, Amite County; Miss Barbara Talbert, Jackson County; Miss Thelma Welch, Lincoln County; Miss Ruby Dell Young, Adams County.

Miss Virginia Walker, Meridian, was sent for a period of observation in Lauderdale County and Miss Mabel King, Jackson, for a period of observation in Pike County.

Dr. Reuben T. Crawford, Chief of Division of Oral Hygiene, State Department of Public Health, Montgomery, Ala., spent April 26-29 in Mississippi viewing the mouth health activities of the State Board of Health. Beginning in Meridian, Dr. Crawford visited the Lauderdale County Health Department on Monday, conferring on Tuesday and Wednesday at the State Board of Health and the Hinds County Health Department in Jackson.

Dr. C. S. C. Guild, Field Secretary, National Tuberculosis Association, New York, visited the State Board of Health for a few days during April when he conferred with Drs. Underwood and Ricks. Dr. Guild was formerly director of the Lee County Health Department, Tupelo.

Other recent visitors to the State Board of Health were Dr. W. K. Sharp, Jr., Regional Consultant, U. S. Public Health Service, who observed administrative procedures; Dr. Harold M. Teel, of Boston, Mass., soon to become instructor in maternal care at Harvard University, who observed the work of the Division of Maternal and Child Health; and Dr. Carl E. Buck, Field Director of the American Public Health Association, who visited those counties competing in the rural health conservation contest this year, i. e., Pike, Washington, Lauderdale, Coahoma, and Sunflower Counties. Pike County Health Department, McComb, Miss., was the winner in the Southeastern Division; Coahoma County Health Department, Clarksdale, Miss., received honorable mention.

Dr. C. H. Love, Director of Monroe County Health Department, Aberdeen, and Dr. J. W. Barkley, Director of Humphreys County Health Department, Belzoni, returned to their respective counties on April 25 after a four months' stay at Vanderbilt University, Nashville, studying public health administration.

Dr. Harry E. Handley, Assistant Director, Division of Public Health, The Commonwealth Fund, New York City, visited the State Board of Health on April 20. While in the state, Dr. Handley also visited Union County Health Department to view the work of Dr. A. L.

Gray, Epidemiologist with the State Board of Health who is conducting a study of communicable diseases; and the Lauderdale County Health Department, Meridian.

On April 5-9, Dr. Underwood attended the meeting of the State and Territorial Health Officers and State and Provincial Health Authorities of North America in Washington. For the former, he will serve as Chairman of the Yellow Fever Committee as well as Chairman of the Maternal and Child Health Committee during 1937.

The April radio program of the State Board of Health featured Dr. George Evans, Secretary, State Dental Association, with Miss Gladys Eyrich, State Supervisor of Mouth Health; Dr. Harold D. Meyer, Regional Director, Division of Recreation and Acting Head of the Department of Sociology, University of North Carolina; Miss Mary D. Osborne, R. N., State Supervisor of Maternal and Child Health and Dr. J. A. Milne, State Supervisor, Field Unit. Dr. Evans and Miss Eyrich discussed "Where Dentistry and Public Health Meet" in their broadcast. Dr. Meyer talked on "Recreation and Health"; Miss Osborne gave a suggestive outline for "Child Health and Protection," and Dr. Milne spoke on the interesting subject, "The Forgotten Child."

Jackson, Felix J. Underwood,
May 3, 1937. Executive Officer.

PRENTISS COUNTY MEDICAL SOCIETY

The great reaper of death came to our medical ranks and claimed our co-worker, Dr. W. V. Davis, March 7. He had practiced medicine in this county for about 45 years. Death was sudden. He was stricken while visiting a patient. He was a good man and well informed in the art of his profession.

The Northeast Mississippi Thirteen County Medical Society met at Booneville, March 16. We had 66 physicians to register and the Woman's Auxiliary had a goodly number of guests. All seemed to enjoy the scientific program and the banquet. We want them to come again.

Our county society meets on the first Monday night in each month at the local hospital. We usually have about 90 per cent attendance and always a good program.

The writer recently had an extended visit with his brother, T. S. McDougal, of Alaska, in Washington, D. C. We were met there by my sons, Dr. Myres McDougal, of the law faculty of Yale University, New Haven, Conn., and Dr. L. L. McDougal, Jr., of Providence, R. I. After spending a few days in Washington we motored to Philadelphia, New York City, New Haven, Conn., Providence, R. I., and Boston, Mass. At the latter place we visited Harvard University and on our return to New Haven we were shown through Yale by Myres. It was a great inspiration to me to see and know of these great institutions. The two universities have an endowment of more than two hundred million dollars and each school was organized more than 240 years ago. They can accomodate only about one-fifth of the students who apply.

Dr. and Mrs. W. H. Sutherland motored to Charlotte, N. C., to attend the Southeast Surgical Congress recently. They report a nice trip and a good meeting.

Dr. and Mrs. Milton Adams, with their young son, William, came out from Memphis and spent a few days with Mrs. Adams' mother, Mrs. J. F. Taylor. Mrs. Adams' father, Dr. Frank Taylor, was a first cousin of Dr. Marcus Taylor who married the daughter of Dr. Crawford Long of Georgia, who was first to use an anesthetic. Dr. Adams was formerly connected with Anderson's Clinic of Booneville and is now doing plastic surgery in Memphis.

Booneville, L. L. McDougal, Sr.,
April 28, 1937. County Editor.

DESOTO COUNTY

This county has 90 per cent plus membership in county and state associations. Tate county has 100 per cent and the North Mississippi 76 per cent. In fact this second district has the best percentage of any councilor district in the state in membership and interest.

The county editor, with many others, is making preparations to attend the meeting in Meridian. "A good time is expected by all."

Spring with all of its loveliness is here, likewise that lackadaisical feeling.

Dr. Clarence D. Prichard, who completed his interneship at the Baptist Memorial Hospital, Memphis, some months ago has located at Lambert, being associated with Dr. J. P. Walker. The doctor is well prepared for his chosen work and his success is assured, particularly since he has selected for his life's partner, Miss Vivenee Taylor, daughter of Mrs. C. G. Taylor, of Walls, a girl of charm and vivaciousness. Dr. Prichard is from Oxford.

In a radio skit recently the "doctor" spoke of measles as "they." I have not seen it but "A Doctor's Diary" has been attacked from several sources as "unfair," "malicious," etc. However, the radio is wonderful; I have one in my car as I ride about and tune in on programs for this point and that. You see how marvelous it is.

We missed in the June's issue of *The Mississippi Doctor* the news from Leflore County which is edited by Dr. W. B. Dickins of Greenwood. We trust the good doctor is not sick and hope to see him in Meridian next week.

Mrs. Weissinger, relict of Dr. A. J. Weissinger, Hernando, has given to the medical department of the University the doctor's library including The Transactions of the State Association for a number of years. This was a generous gift and a fit one also.

Rt. 4, Memphis, Tenn. L. L. Minor,
May 7, 1937. County Editor.

HUMPHREYS COUNTY

Mrs. John Bell has returned from a weeks' visit in Kansas City.

Dr. and Mrs. J. W. Barkley and children after a three months' stop in Nashville are welcomed back to Belzoni.

We wish to thank Dr. Cottrell, of Indianola and Dr. McCaleb, of Yazoo City, for their work in our health department during Dr. Barkley's absence.

Several of Dr. J. W. Mecklin's many friends, among whom were Drs. T. J. Rainer and Henry Mecklin, of Yazoo City, were fortunate guests at his stag dinner given at Louise recently.

Mrs. J. W. Jackson spent last week in Greenville with her sister, Mrs. Eugene Lewis who had her appendix removed. Mrs. Jackson has now been called to Bradford, Tenn., because of the illness of her father, Mr. Lon Crider.

Mrs. Robert Jackson has returned from Daytona Beach, Fla., where her father was ill. We are glad to learn that he is now doing nicely.

Dr. G. W. Bryan has been receiving treatment for sinus diseases at Greenwood. For having such a disease, Dr. Bryan, you have my sympathy.

Dr. and Mrs. W. S. Taylor have been visiting relatives in Winona. We, especially who are hill billies, like to go back to the hills once in a while.

Belzoni, J. W. Jackson.

LEFLORE COUNTY

At the regular meeting of the staff of the Greenwood-Leflore Hospital, Thursday night, eleven of our local doctors, Dr. Sneed, one of our dentists, and Dr. L. H. Hightower, of Itta Bena, and W. E. Denman, Jr., were present to enjoy the nice supper, and the discussion of cases.

Dr. R. B. Yates visited Louisville April 1.

Drs. S. L. Brister, Jr., and G. Y. Gillespie, Jr., were in Memphis, April 1.

Dr. S. L. Brister was brought home to our local hospital from Memphis, where he had been a patient at the Baptist Hospital. He has recovered now, and we are glad to see him well again.

Dr. A. D. Chester, Cruger, brought his son to our local hospital April 4 for treatment.

Dr. W. E. Denman is back in active practice again, and has opened his office in the Physicians & Surgeons Building, 501 W. Washington St.

We are glad to welcome two Greenville physicians to Greenwood, Drs. John F. Lucas and R. E. Wilson, who have opened offices in the Physicians & Surgeons Building, 501 W. Washington St. Dr. Lucas will limit his practice to obstetrics and gynecology, and Dr. Wilson to pediatrics.

Dr. and Mrs. Merritt, of Boyle, were visitors to Greenwood Sunday, April 11.

Mr. and Mrs. Wm. Hicks, Inverness, announce the birth of a son, April 13, at the Greenwood-Leflore Hospital. Mrs. Hicks is the daughter of Dr. and Mrs. F. M. Sandifer of this city.

The following doctors attended the meeting of the Delta Medical Society at Greenville, April 14: Drs. L. A. Barnett and wife; J. C. and Mrs. Adams; Dr. and Mrs. R. B. Yates; Dr. and Mrs. J. A. Crawford; J. P. Bates, W. B. Dickins, W. E. Denman, F. M. Sandifer, Jr.; Edgar Giles, Avalen; L. B. Otken; G. Y. Gillespie, John F. Lucas and R. E. Wilson; L. H. Hightower, Itta Bena; Hall and Riddell, Swiftown.

Dr. Moon, of Phillip was a visitor to Greenwood April 15.

Dr. J. C. Adams was a patient in our local hospital April 16 to 22. He was visited by Dr. Robin Harris, Jackson, April 19.

Dr. Hugh Gamble, Greenville, visited Greenwood, April 22.

Dr. and Mrs. W. B. Dickins spent the week end of May 1-2, in Monticello, Ark., with their son and daughter, Dr. and Mrs. R. D. Dickins.

Dr. C. N. D. Campbell, Cruger, brought a patient to our local hospital for operation on April 28.

Greenwood, W. B. Dickins,
May 3, 1937. County Editor.

WARREN COUNTY

The Auxiliary, our wives and sweethearts, on April 20, 8 p.m., at Mrs. King's Tea Room, some eight miles out from Vicksburg, held their annual *fete* of entertaining the doctors of the Issaquena-Sharkey-Warren Counties Medical Society.

This entertainment consisted of a bountiful dinner, followed by extemporaneous stunts which exhilarated love, laughter and song.

The president of the Auxiliary was the gracious, Mrs. B. B. Martin, Sr., who at the close of the dinner hour, delegated the duties of master of ceremonies to Dr. Sydney W. Johnston, who in turn delegated same to Mrs. B. B. Martin, Jr., hereinafter known as Mary, and Dr. Walter Johnston hereinafter known as Walter.

From the very beginning the entertainment was full of glee, gladness and "punch."

The masters of ceremony began to pull their humuorous tricks from the mystic bag.

(1). Mary and Walter led the *variously* trained forty or more voices in a community song of "When Good Friends Get Together" accompanied at the piano by Mrs. Maimo Minter. "It was terrific, delectable and delimit."

(2). Then Mary called for the old renowned, marvelously trained, harmonizing and synchronizing "Barber Shop Quartette," composed of Edley Jones, John Dent, Gus Street and Mich Smith; "Sweet Adeline" really "pined" as Gus Street switched from low bass to high tenor with as much alacrity, dexterity and clarity as is heard in the shifting of the gears of a Model T. Ford.

(3). To change the harmony, Mary and Walter then selected two groups of the "Auxiliary Girls" and had them furnish us a real treat in old-time melodies.

(4). Now these masters of ceremony pulled an unprecedented trick from their Houdini equipment—the "Obstetrico-Pediatric Quartette" composed of Dick Street, Pierre Robert, Guy Jarratt and Alston Callahan. Why they put an eye and throat man in this quartette we can not figure, unless it was to supply tears and yells, and brother, did they do it? There was a swaying and a swinging as they sang "Rockabye Baby In The Tree Top."

(5). Mary and Walter then called out the "Juvenile Quartette," composed of Drs. Hugh Johnston, Isadore Dyer, Alston Callahan and Osric Armstrong. They would have been a "howling success" had it not been that Hugh had an acute case of laryngitis, Isadore bilateral chorditis, Alston chronic rhinitis and Osric had repeated asthmatic seizures. The general impression was that they only pantomined and what we heard was a transcribed recording of Bob Burns and his bazooka.

(6). The masters of ceremonies exceeded themselves in entertainment when they presented *The Rhumba* put on by those artists of undulating, vibrating, oscillating tango fame, Drs. Preston Herring and Nathan Lewis. Nathan assumed the matador poise, holding aloft a variegated shawl. Preston, coatless, took the posture of a toreador, waving a tablecloth. When the pianist struck up the Spanish Fandango the rafters shook and the floor vibrated as the dancers' bodies in rhythmic alternations began to shake and shiver, wriggle and roll, toddle and waddle, quake and quiver, and all present were made to fear some seismic disturbance was shaking our little world.

(7). The seventh feature our entertainers offered, like the numeral *seven,* was occult, mystic and psychic. Dr. Benson Martin, Jr., was the man evincing the invisible *touch,* a vision penetrating opaque objects and an x-ray mind. While Benson was out of the assembly room the entire group was instructed to concentrate its thoughts on one object. Benson returned, he inhaled a few whiffs of the atmosphere surcharged with mental energy and then walked over and picked up a *stool* and said correctly, "this is it." He received rounds of applause, but we did not think this unusual or entirely psychic, but only showed Benson *keeps up,* not alone in medicine but with the social order, and like our W. P. A. workers, he is planning a "sit-down strike" on Dad and Mary.

(8). The eighth offering in entertainment was the A. B. C. Wedding in which the father's part was taken by Dr. Alston Callahan, the preacher, Dr. Kellifer, the groom, Dr. Smith; the bride and maids of honor were chosen from the most beautiful of our Auxiliary girls. The marriage did not go over so big—a mistake was made in choosing the groom. Unfortunately they selected a stripling, a beardless youth with a depression hair cut (every hair cut to the bone) and he was so excited, although the preacher went through the A B C ceremony *twice,* giving him ample opportunity to *kiss* his bride at the end of each ceremony, yet the poor boy could not summon up the courage. The marriage will be a life-long *disappointment*.

(9). So Mary and Walter "waltzed us around again" and brought us face to face with that renowned *Unveiler* and *Revealer,* Dr. Osric Armstrong, the missing tooth wizard of legerdemain, who with unbelievable temerity, audacity and sagacity entered *alone* (Nathan does not get in) every man's and woman's coffee pot, tea kettle, boudoir, irrigation or immersion room and dragged out the skeletons just to hear them rattle.

(10). The climax came in the tenth event, the presentation and performance of "The Grandfather's Quartette" which was composed of those well known centenarians, Drs. W. H. Scudder, Sydney Johnston, Benson Martin, Sr., and George Street. One of the masters of ceremony being an eminent bone and joint specialist, with the aid of his peerless assistant, finally by means of tractors, casts, braces, and splints, dexterously assembled this tottering group in fossil formation. At the sound of the piano they began heroically to give their arrangement and interpretation of "Old Black Joe" by singing, "Gone are the days when my joints should know no pain, Gone are my bender friends from 'bar' to 'bar' again." As they sang on we were impressed that there was unusual static; after closer attention we discovered it was only an antagonism between the artificial canines of the upper jaw with the shimmying bicuspids of the lower plate. Nevertheless they *rated* an encore and for their second rendition they were inspired by the hope that their glamorous yesterdays might somewhere and somehow meet and mingle with their optimistic tomorrows, and fervently they sang:

"Oh! speed you, white winged ship of mine,
Oh speed you to the sea,
Some other day, some other tide, come back
Again for me.
Come back with all the memories, the joys and
E'en the pain,
And take me to the *golden hills of boyhood*
Once again."

It was pathetic, it was tragic, the spectacle of these grim visaged old veterans of a "lost cause" lifting their shaking, shattered, choking, croaking voices in a hapless appeal for the days that are no more.

The entertainment now is over and in a grand finale the entire group joined in singing "Good-bye Ladies", thereafter we expressed our fond adieus and filed out into the silence of the star-lit night with pleasant memories and fond recollections that will abide forever and for aye.

All of our May letter has been given to the news of the annual party given by our Auxiliary for our doctors. Perhaps too much has already been written, but we just wish to add that practically all of the doctors of our Medical Society and their wives were present except about three. You know in every community there are some folks, just lacking civic pride; they seem to think the 'way off yonder' do the *big things*. So on this marvelous occasion with so much display of *non-pariel* home talent, Leon Lippincott, Laurance Clark and Bill Purks had to sneak off to some little old Medical Society called the American College of Physicians, that met in some little old town in Missouri, St. Louie, or something, and missed all this grand entertainment right at their doors. Well some folks are just beyond understanding.

Vicksburg, H. T. Ims,
May 3, 1937. County Editor.

"In life there is nothing more unexpected and surprising than the arrival and departure of pleasure." So after closing a letter of friendly jest, and after experiencing the pleasure of attempted wit and banter, we are rendered sad and reminiscent when we are advised of the death of Dr. Sylvan Myers occurring at his home here April 29. Personally, we are not familiar with the high points of his eventful life, he having been retired from practice for several years, but he has practiced his profession here in Vicksburg some thirty or more years. He possessed a brilliant mind, a pleasing personality. May he rest in peace while falling asleep in the afternoon sunshine of his eventful day.

H. T. Ims,

HOSPITAL STAFF TRANSACTIONS

WINSTON COUNTY

Congratulations to our excellent president, Dr. H. F. Garrison, for his progressive and constructive service rendered since he became president of the Mississippi State Medical Association. May his work be carried out by his successor in the same untiring way.

The doctors of this county are hoping to attend the meeting next week of the Association. We feel that we have a wonderful program.

Dr. W. A. Young, of Bond Neighborhood, made a business trip to Starkville last week.

Dr. T. F. Kilpatrick, of Noxapater, was on the streets this week on business.

Not being personal but the three negro girls delivered by the writer January 31, 1937, are all growing nicely. The P. W. A. has furnished codliver oil for the babies and rendered much aid to their parents, I. D. Miller and wife of Louisville.

Let us all try to meet next week with all the doctors and make the Medical Association excel any we have ever had.

Louisville, M. L. Montgomery,
May 7, 1937. County Editor.

HOUSTON HOSPITAL STAFF MEETING

The regular monthly staff meeting of the Houston Hospital was held in the lobby of the hospital, Friday night, March 30, at 7:30 o'clock.

Miss Mary Lo Kirby of Houston, rendered a lovely program of piano solos during the dinner hour. Dr. S. J. Edmondson, of Vardaman, was the principal speaker of the evening and gave an interesting talk on "Prenatal Care." There was an enthusiastic discussion of the paper in which all the doctors present took part.

Houston, May 1, 1937.

MISSISSIPPI STATE MEDICAL ASSOCIATION OFFCERS 1937-1938

President—W. L. Little, Wesson.

President-Elect—Joe E. Green, Laurel.

Vice-Presidents: F. S. Hill, Grenada; Lawrence W. Long, Jackson; R. F. Ratcliff, Lucedale.

Historian—Leon S. Lippincott, Vicksburg.

Editor—Leon S. Lippincott, Vicksburg.

Associate Editors: D. W. Jones, Jackson; G. S. Bryan, Amory.

Speaker of the House of Delegates—J. P. Wall, Jackson.

Treasurer—E. LeRoy Wilkins, Clarksdale.

Secretary—T. M. Dye, Clarksdale.

Council: First District, J. W. Lucas, Moorhead; Second District, L. L. Minor, Rt. 4, Memphis, Tenn.; Third District, R. B. Caldwell, Baldwyn; Fourth District, T. J. Brown, Grenada; Fifth District, W. H. Watson, Brandon; Sixth District, H. Lowry Rush, Meridian; Seventh District, J. Gould Gardner, Columbia; Eighth District, W. H. Frizell, Brookhaven; Ninth District, D. J. Williams, Gulfport.

Committees:

Public Policy and Legislation: W. H. Anderson, Booneville; F. J. Underwood, Jackson; Henry Boswell, Sanatorium.

Publication: Leon S. Lippincott, Vicksburg; D. W. Jones, Jackson; G. S. Bryan, Amory.

Program: T. M. Dye, Secretary, Clarksdale.

The Chairmen of Sections

Constitution and By-Laws: W. H. Frizell, Brookhaven; J. Rice Williams, Houston; W. W. Crawford, Hattiesburg.

Budget and Finance: J. B. Howell, Canton; B. S. Guyton, Oxford; D. C. Montgomery, Greenville.

Delegate to the American Medical Association—Harvey F. Garrison, Jackson.

Fraternal Delegates:

To Alabama—I. W. Cooper, Meridian.

To Arkansas—E. LeRoy Wilkins, Clarksdale.

To Louisiana—Lucien S. Gaudet, Natchez.

To Tennessee—S. E. Eason, New Albany.

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASSOCIATION

President	Mrs. C. C. Hightower Hattiesburg
President-Elect	Mrs. John Howell Canton
First Vice President	Mrs. D. J. Williams Gulfport
Second Vice President	Mrs. J. P Wall Jackson
Third Vice President	Mrs. Henry E. Frizell Vaughn
Fourth Vice President	Mrs. V. B. Philpot Houston
Recording Secretary	Mrs. H. C. Ricks Jackson
Treasurer	Mrs. J. D. Simmons Cleveland
Historian	Mrs. Harvey F. Garrison Jackson
Parliamentarian	Mrs. Adna G. Wilde Jackson

Councillors: Mrs. T. G. Hughes, Clarksdale, first district; Mrs. C. M. Roberts, New Albany, second district; Mrs. W. H. Cleveland, Tupelo, third district; Mrs. E. C. O'Cain, Winona, fourth district; Mrs. Hugh Johnston, Vicksburg, fifth district; Mrs. H. Lowry Rush, Meridian, sixth district; Mrs. J. P. Culpepper, Hattiesburg, seventh district; Mrs. W. K. Stowers, Natchez, eighth district; Mrs. Archibald C. Hewes, Gulfport, ninth district.

MRS. HOLLOWELL IS NEW PRESIDENT OF MEDICAL AUXILIARY

Mrs. Fred Hollowell, of Jackson, charming and active worker in the Ladies' Auxiliary to the Central Medical Society, was announced incoming president of the auxiliary Tuesday at a beautiful home of Mrs. F. L. VanAlstine, Gillespie place.

Mrs. Van Alstine was assisted in receiving by Mrs. Hollowell, Mrs. Temple Ainsworth, out-going president, and Mrs. William E. Noblin, Jr.

An interesting feature of the afternoon was a talk by Mrs. Ainsworth in which she told how she had enjoyed her term of work with the Auxiliary, and how she appreciated the splendid co-operation of every member during the year.

New officers in addition to Mrs. Hollowell are: Mrs. T. E. Wilson, vice-president; Mrs. Frank Hagaman, treasurer; Mrs. George Owens, secretary; Mrs. Walton Lipscomb, press and publicity; Mrs. A. G. Wilde, historian; and Mrs. J. B. Howell, Canton, parliamentarian.

A delicious ice course was served.

Those present were: Mesdames Lawrence Long, W. F. Hand, J. A. Milne, H. C. Sheffield, O. F. Carr, Felix Underwood, Kimbrough. Fred Hollowell, T. E. Wilson, A. G. Wilde, Harvey F. Garrison, Sr., Noel C. Womack, N. R. Currie, C. F. McKenzie, J. B. Howell and guest, both of Canton, J. E. McDill, Temple Ainsworth, and W. E. Noblin, Jr.

STATE AUXILIARY PRESIDENT

The auxiliaries over the state are looking forward with interest to the work Mrs. C. C. Hightower, of Hattiesburg, the new state president, has mapped out for her year in the presidency. She has an enthusiasm that portends accomplishment, and the ability and personal charm necessary to achieve her goals.

Mrs. Hightower, the mother of a son, Chas. C. Hightower, Jr., who is now taking premedical work at the University of Texas, and a daughter who enters senior high school in Hattiesburg this fall, is a woman of great versatility in addition to her home interests. A member and past president of the Hattiesburg Music Club, she has a lovely voice heard often in Hattiesburg. She is also somewhat of a musician and collector of books, having quite a creditable private library of her own. She possesses other talents which she applies in the federated clubs of her town, her church (Baptist) and the Hattiesburg branch of the American Association of University Women. Her interests are so varied and her intellect so alert that she is a delightful conversationlist—and all in all a person of charm, poise and culture, whom we are proud to have as the president of the Mississippi State Medical Auxiliary.

Every doctor's wife who attended the state meeting in Meridian last month returned with a feeling that the Auxiliary is the best medium she could possibly have to know other doctors' wives and to make a real vacation of the medical convention. It has been the idea of Mrs. Wilde, the president, all the year to promote more friendliness among doctors' wives. She hoped to plant once for all the feeling that the Auxiliary, though conscious and sympathetic always of the profession's interests, is primarily to promote a pleasant consociation among the wives. And indeed the Meridian wives deserve many plaudits for their most lavish hospitality and entertainment during the meeting. Luncheons, teas, drives, golf, and other kinds of recreation kept us on the go every day we were there. Many little courtesies made us feel not only welcome but honored guests. To Mrs. Lowry Rush we know much credit is due for her careful planning of even small details that contributed to our pleasant stay.

OUR YEARBOOK

At the business meeting of the Auxiliary one of the chief adoptions was a yearbook. Mrs. Dan J. Williams, of Gulfport, was made chairman of the Yearbook Committee, and she proposes to have these books prepared very soon.

The purpose of a yearbook, it was explained, is to provide ready information concerning the officers, committee chairmen, proceedings and special transactions of the state meeting. It should serve as a handy atlas for every member, and keep her easily posted. Also, every separate auxiliary over the state will be included, with officers and date of meeting. The yearbook will be as useful in our auxilary work as a yearbook is in federated or study club work.

LUNCHEON FOR HUSBANDS

At the meeting in Greenville last year a special luncheon was given by the Auxiliary members, and their husbands were invited to be guests. That luncheon proved so successful that the same idea was used this year in Meridian. And it was so well enjoyed, we are sure it will now become a permanent custom. Mrs. Adna G. Wilde, toastmistress, presented Dr. W. D. Haggard, of Nashville, as guest of honor for the occasion. His remarks were rich with wit and delightfuly apropos of Coronation Day and the Duke of Windsor and Wallis Warfield love affair. Mrs. Harvey F. Garrison gave a tribute of appreciation to Meridian hospitality and the new officers of the Auxiliary were presented.

MRS. JOHN HOWELL ELECTED PRESIDENT-ELECT

Mrs. John Howell, of Canton, was elected president-elect of the Mississippi State Auxiliary to the Medical Association at the annual meeting in May. Mrs. Howell is a woman of exceptional personal charm, ability, and is always smartly dressed. She has been an active member of the State Auxiliary for several years. Her experience and the unanimous vote she received are evidence of her worthiness to grace the position she will hold a year hence.

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and
Medical Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

JOHN W. RAGSDALE, M.D.
CHESTER D. ALLEN, M.D.
327 Medical Arts Bldg.
Memphis, Tenn.
Urology and Urological Surgery

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as applied in this field
1403-1407 Exchange Bldg.
Memphis, Tenn.

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Memphis, Tennessee
Phones: Off: 6-1923 Res: 4-4213

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tenn.

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Miss.

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

ROBIN HARRIS
Eye, Ear, Nose and Throat
and Bronchoscopy
Lamar Life Building
Jackson, Mississippi

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

J M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 6-3288
899 Madison Ave. Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Miss.

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WM. MILTON ADAMS, M.D.
Practice Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tenn.

HENRY G. HILL, M.D.
Clinic, 847 Madison Avenue
Memphis, Tennessee
Practice Limited,
Diseases and Injuries
Bone and Joints
Cripples and Deformities
Braces and
Orthopedic
Appliances

FRANK W. SMYTHE, M.D.
Practice limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-surgery
Physicians and Surgeons Bldg.
Memphis, Tenn.
Phones: Off: 6-3288 Res: 2-9645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tenn.

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tenn.

GILBERT J. LEVY, M.D.
Practice Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap, St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tenn.

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tenn.

DR. Wm. F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Miss.

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Bldg.
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy
Ionization for Hay Fever

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Miss.

T. E. WILSON, M.D.
Practice Limited to Internal Medicine
Office 522 Standard Life Building
Jackson, Miss.

ROBERT H. BRUMFIELD, M.D., F.A.C.S.
General Surgery and Urology
McComb, Miss.

DR. J. W. LIPSCOMB, JR
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Miss.

LAWRENCE W. LONG, B.A., M.D., F.A.C.S.
410-412 Standard Life Bldg.
Jackson, Miss.
GENERAL SURGERY
Surgical Diseases of Children.

F. M. ACREE, M.D.
Greenville, Miss.

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

R. L. DONALD, M.D.
207-8 Miazza-Woods Bldg.
Meridian, Mississippi
Office Hours: 10 to 12 a. m.—3 to 5 p. m.

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians & Surgeons Bldg.
(899 Maddison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
and
Bronchoscopy
Princess Theatre Building
Columbus, Miss.

W. L. WILLIAMSON, M.D., F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

RICHMOND McKINNEY, M.D.
Otolaryngology, Bronchoscopy, and
Esophagoscopy
Suite 218 Physicians and Surgeons Bldg.
(Baptist Hospital Annex)
Memphis, Tenn.

DR. J. CASH KING
formerly at John Gaston Hospital
and University of Tennessee
announces the opening of his office
for the practice of RADIOLOGY
902 Madison Avenue
Memphis, Tennessee Telephone 6-7460

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

Walter W. Robinson, M.D.

Crisler Clinic

1291 Union Avenue

Memphis, Tenn.

Specializing in

PATHOLOGY

ROENTGEN

DIAGNOSIS and THERAPY

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS Clinical Pathology
MARJORIE WADE, Bacteriology

SHIELDS ABERNATHY, M.D., F.A.C.S.

HOWARD H. ASHBURY, M.D., Oncologist

CLINIC

For General Surgical and

Neoplastic Diseases

Complete Modern Radiological Equipment

1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING

I G Duncan, B.S., M.D., F.A.C.S

J. S. Fleming, M.D.

GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION

Suite 1500-06 Commerce Title Bldg.

Memphis, Tenn.

Founded in 1879

Allison's Wells

HOTEL - SANATORIUM

Famous through the years for the wonderful properties of its mineral water and as a health resort, Allison's Wells, under the direction of Dr. A. J. Brown this year has become the only sanatorium of its kind in Mississippi.

In addition to maintaining its full popularity as a resort-hotel, Allison's Wells has added a sanatorium department for the treatment of malaria, mild mental diseases, gastro-intestinal trouble, gall bladder trouble, arthritis and other troubles.

The sanatorium, which is guided by a board of governors composed of ethical physicians, is equipped with modern facilities.

For full information and rates, address

ALLISON'S WELLS,
HOTEL - SANATORIUM
On I. C. Main Line between Canton and Durant, on Jefferson Davis Highway.
WAY, MISS.
A. J. Brown, M.D.
"A Source of Health In The Garden Spot of Central Mississippi"

DUCKWORTH DRUG COMPANY

Booneville, Mississippi

Distributors of:

Luminal of Sodium

Tablets and Powder

Novocaine Ampoules

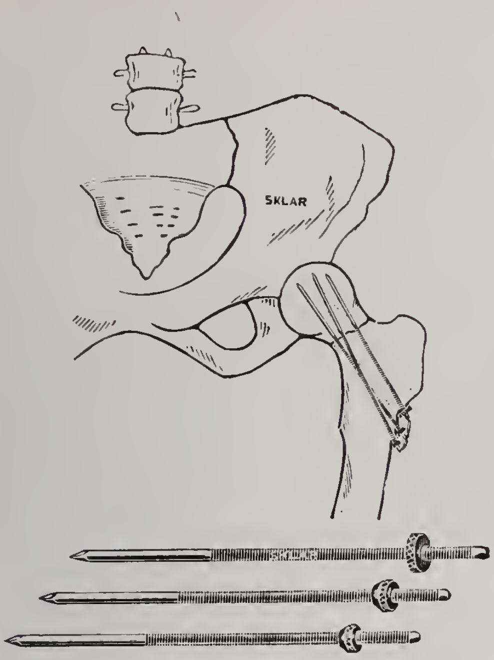
Atabrine

Elixir of Pryamidon

Theominal Tablets

WINTHROP CHEMCAL COMPANY

New York City



Set of 3 nails $3.75

DR. AUSTIN T. MOORE'S

ADJUSTABLE NAILS

The advantages of this new technique are many: The operation is not difficult to perform; it can be done entirely under local anesthesia; time of operation, in majority of cases, is but 30 or 40 minutes. There is far less disturbance to the blood pressure than by other methods. The equipment for the operation is simple and inexpensive — no complicated apparatus is required.

Another distinct advantage of Dr. Moore's technique is that X-ray expense is reduced to a minimum (an experienced surgeon can perform the operation without an X-ray).

Prolonged hospitalization is avoided and ambulation is very speedy — frequently immediate.

Dr. Moore's complete set of personally designed Bone Instruments are available to all surgeons.

Write us for prices and descriptive literature on Moore's Complete Bone Instruments.

McKesson & Robbins, Inc.

Doster-Northington Division

Birmingham, — Alabama

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 **221 North Farrish St.**
Jackson, Mississippi

Telephone 4-5323

THE DR. EDWIN W. COCKE SANATORIUM AND CLINIC
(Formerly Hayes Sanatorium)

MEMPHIS, TENNESSEE

City Office—899 Madison Avenue

Consultation by appointment only

An institution for the treatment of mental and nervous diseases, drug addictions, and alcoholics. A clinic will be operated in conjunction with the sanatorium for the investigation, dianosis and treatment of all psychopathological and psychiatric cases where hospitalization is unnecessary. Special attention gien to a limited number of mentally retarded children. Buildings recently completely remodeled and therapeutically equipped, offering every facility for the scientific care of patients.

—Located ten miles east of Memphis—
For Detailed Information and Rates

Address

EDWIN W. COCKE, M.D.
Medical Director

(Formerly 22 years Clinical Director, Medical Superintendent, Western State Hospital, Boliar, Tenn., and Commissioner, Department of Institutions, State of Tennessee.)

HOUSTON HOSPITAL, Inc., HOUSTON, MISSISSIPPI
Approved: American College of Surgeons and American Hospital Ass'n.

—FULL TIME STAFF—

V. B. PHILPOT, M.D., F. A. C. S.
Surgery and Gynecology
J. R. WILLIAMS, M.D.
X-ray, Superficial and Deep Therapy and Radium

G. G. ARMSTRONG, M.D., F.A.C.S.
Eye, Ear, Nose and Throat

DOUGLAS D. BAUGH, M.D.
Diagnosis and Internal Medicine

LET US . . .

Supply your needs, such as:

- Prescription Blanks
- Laboratory Blanks
- Letter Heads
- Statements
- Envelopes
- Blotters

SPECIAL: 10,000 Prescription Blanks........$8.50

Send your order to

BOONEVILLE PRINTING CO., Inc.
Booneville, Miss.

MEMPHIS' *newest and most conveniently located hotel . . . .*

the Wm. Len

In addition to its famous southern cuisine and luxurious accommodations, the Wm. Len serves its guests an extra measure of genuine southern hospitality.

right down town in Memphis

ON MAIN AT MONROE

Hotel Wm. LEN

MEMPHIS, TENN.

R. E. McEachin, manager

when a full *night's sleep* is important

DURING illness, or before an operation, sleep is particularly necessary; yet fear and worry often rob the patient of needed rest. In such cases the use of a safe and effective sedative is advisable.

Ipral Calcium has been used for more than twelve years as a safe sedative and hypnotic. It induces a sound, restful sleep closely resembling the normal, from which the patient awakens calm and generally refreshed. Ipral is readily absorbed and rapidly eliminated, its effect being chiefly confined to a selective action on the higher cerebral centers. In therapeutic doses no untoward organic or systemic effects have been reported from its use.

Ipral Calcium (calcium ethylisopropylbarbiturate) is supplied in 2-gr. tablets and in powder form for use as a sedative and hypnotic.

Ipral Sodium (sodium ethylisopropylbarbiturate) is supplied in 2-gr. tablets and capsules for hypnotic use and in 4-gr. tablets for preanesthetic medication.

Tablets Ipral-Aminopyrine (2 gr. Ipral, 2.33 gr. Aminopyrine Squibb) provide both analgesic and sedative effects.

Ipral Calcium (Powder) is available in 1-oz. bottles. Tablets Ipral Calcium 2 gr., Tablets Ipral-Aminopyrine 4.33 gr., Tablets Ipral Sodium 2 gr. and 4 gr. and Capsules Ipral Sodium 2 gr. are available in bottles of 100 and 1000.

For literature address Professional Service Department, 745 Fifth Avenue, New York.

Ipral PRODUCTS

MADE BY E. R. SQUIBB & SONS, MANUFACTURING
CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

Blue Mountain College

Cradle of Southern Culture
Inaugurated
The Southern Literary Festival
on
Shakespeare's Birthday
April 23, 1937

THE Southern Literary Festival, held at Blue Mountain, will be observed annually on the same date. The South is "ready definitely to enter a literary renaissance," Professor C. P. Lee of Southwestern at Memphis told the festival. Professor M. L. White, head of the Department of English at Millsaps College, voiced the sentiment of the group of representatives from 12 colleges in four states in his statement, "I consider the Southern Literary Festival just now concluding its first annual meeting, the greatest impetus to creative writing in the colleges that I have known."

The two principal speakers were Margaret Flint, novelist, who won the $10,000 Pictorial Review novel prize in 1936, and Robert Penn Warren, poet from Baton Rouge, La., editor of SOUTHERN REVIEW, former Rhodes scholar at Oxford, professor of creative writing in Louisiana State University.

BLUE MOUNTAIN COLLEGE

Blue Mountain, Mississippi

A Senior College for Women

A college of liberal and fine arts thoroughly accredited by full membership in The Southern Association of Colleges and in The Association of American Colleges.

Lawrence T. Lowrey, President

Main Building

NEW FENWICK SANITARIUM

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES

DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association — medical staff specially trained — clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds — homelike environments — located in the healthy and beautiful town of Covington, Louisiana — a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, JULY, 1937 NO. 2

THE N.Y. ACADEMY OF MEDICINE
OCT 20 1937
LIBRARY

BELLEVUE SPEAKS

I stand by the side of a river
That's salt with the tang of the sea,
There's never a port of any sort
But sends her sons to me.

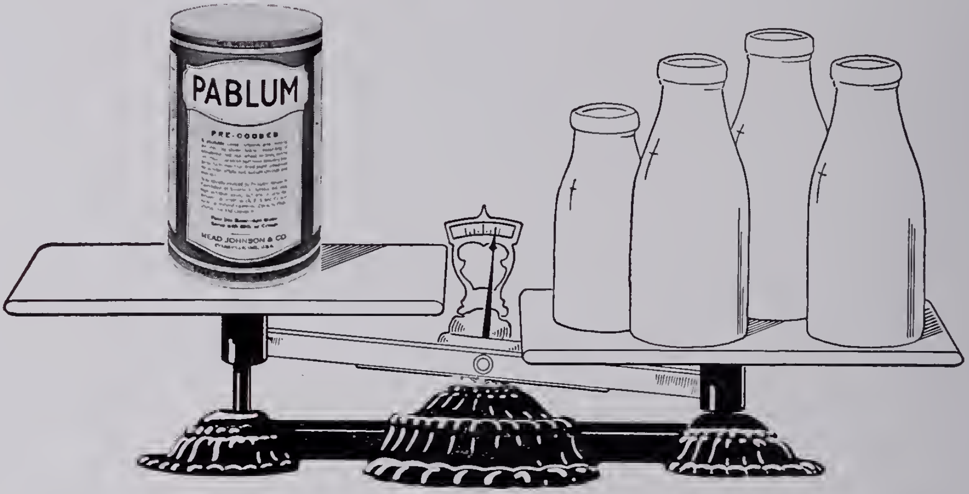
To me, from the ships on the river
They come to be eased of their pain,
But when they at length regain their strength
They're off to the ships again.

I stand by the side of a current
That's deeper far than the sea,
And storm-beaten craft of every draught
Come in to be healed by me.

But some have more sin than fever,
And some have more grief than pain,
God help me make whole both body and soul
Before they go out again.

HYLA S. WATTERS, M.D.
Interne on Cornell Division, 1921-1922

PABLUM Absorbs 7 Times Its Weight in MILK!



RICH IN IRON AND VITAMIN B, PABLUM COMPLEMENTS MILK

PABLUM is a distinct aid in the ever-present problem of persuading children to take more milk. So porous is Pablum that when mixed to the consistency of ordinary hot cooked cereals it holds 7 times its weight in milk—before being served with added milk and sugar. Pablum is not only an excellent carrier for the high food values which make milk indispensable in the child's diet, but in addition Pablum complements milk. The latter, although regarded as a nearly perfect food, is recognized as being deficient in iron and in vitamin B, both highly essential to the growing child. These deficiencies are corrected when milk is combined with Pablum, the latter furnishing 8½ mg. iron per ounce and an important amount of vitamin B. An average portion of Pablum (1 ounce) as served at the table with milk and sugar offers unusually high nutritional values, namely:

Ca	P	Fe	Vitamins A. B. G	Protein	Fat	Carbohydrates	Calories
.53 gm.	.41 gm.	9 mg.	+ + +	13 gm.	10 gm.	39 gm.	295

The calcium and iron—minerals often deficient in the child's diet—generously aid in meeting the daily requirements. Substantial amounts of phosphorus and vitamins B and G are also furnished. In addition, there is a large measure of protein, fat, carbohydrates, and calories. That Pablum is "more than a breakfast dish" is being recognized by physicians who use it not only in infant and child feeding but also recommend Pablum to adults.

Pablum consists of wheatmeal, oatmeal, cornmeal, wheat embryo, brewers' yeast, alfalfa leaf, beefbone, iron salt, and sodium chloride.

MEAD JOHNSON & COMPANY, Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

A NON-IRRITATING, NON-STAINING ANTISEPTIC

THE ANTISEPTIC SOLUTION to be applied to a delicate membrane should preferably be non-irritating; yet it should be effective.

Neo-Silvol solutions are bland; they may be used in the eye without injuring or irritating the conjunctiva. But Neo-Silvol is an effective antiseptic agent, useful in affections of the eye, nose, throat, and genito-urinary tract.

Neo-Silvol solutions can be made easily and promptly in your office, or by your patient if desired. The six-grain capsules permit accurate preparation of the strength required.

Neo-Silvol (Colloidal Silver Iodide Compound) is supplied in six-grain capsules, packages of 50 and 500, and in 1-ounce and 1/4-pound bottles.

PARKE, DAVIS & COMPANY • *Detroit, Michigan*

THE WORLD'S LARGEST MAKERS OF PHARMACEUTICAL AND BIOLOGICAL PRODUCTS

Short-Wave Diathermy Unit

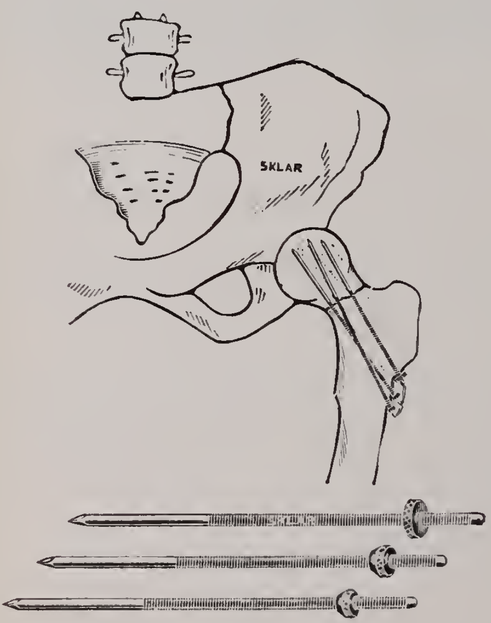
STANDARD MODEL
500 WATTS OUTPUT
18 METERS

Standard accessory equipment furnished with the Hogan Brevatherm "Standard Model" includes:

1 pair 5" x 7" condenser plate electrodes
1 pair 7" x 9" condenser plate electrodes
2 pair cuff electrodes (medium and small)
1 felt "build-up" pad for each electrode above
1 pair rubber electrode bandages with fasteners
1 line cord and plug

Treatment cords with jack plugs are attached to each electrode.

THE GWINNER-MERCERE CO.
191 MADISON AVE.
MEMPHIS, TENN.



Set of 3 nails $3.75

DR. AUSTIN T. MOORE'S

ADJUSTABLE NAILS

The advantages of this new technique are many: The operation is not difficult to perform; it can be done entirely under local anesthesia; time of operation, in majority of cases, is but 30 or 40 minutes. There is far less disturbance to the blood pressure than by other methods. The equipment for the operation is simple and inexpensive — no complicated apparatus is required.

Another distinct advantage of Dr. Moore's technique is that X-ray expense is reduced to a minimum (an experienced surgeon can perform the operation without an X-ray).

Prolonged hospitalization is avoided and ambulation is very speedy — frequently immediate.

Dr. Moore's complete set of personally designed Bone Instruments are available to all surgeons.

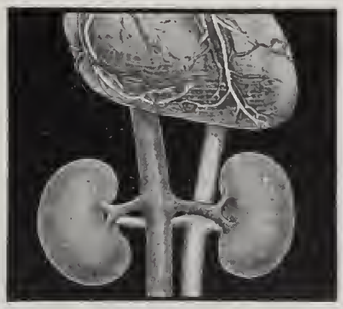
Write us for prices and descriptive literature on Moore's Complete Bone Instruments.

McKesson & Robbins, Inc.
Doster-Northington Division
Birmingham, — Alabama

TCS

Theobromine, gr. 3.40 Calcium, gr. 0.12 Salicylates, gr. 3.48
Phenobarbital, gr. 0.25

Diuretic, coronary vasodilator, myocardial and renal stimulant and neuro-circulatory sedative.



Indications: Hypertension, angina pectoris, coronary thrombosis, myocardial insufficiency, and edema.

◆

Directions
One to three tablets three or four times daily.

◆

Dispensed in bottles of 50 and 250 tablets

◆

WM. P. POYTHRESS & COMPANY, *Inc.*
MANUFACTURING CHEMISTS
RICHMOND VIRGINIA
POYTHRESS 1856

JEFFERSON STANDARD LIFE INSURANCE CO.

The largest regular ordinary Life Insurance Company South of the Mason-Dixon Line.

Policy contracts especially adapted to members of the medical profession.

Trained life underwriters to advise and assist in securing your needs.

J. L. DENSON, District Manager
523-25 Lampton Building
Jackson, Miss

JEFFERSON STANDARD LIFE INSURANCE CO.
JULIAN PRICE, President
Greensboro, N. C.

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate

Here's A **FLEXIBLE** Short Wave

STANDARD MODEL

Short Wave Generator

LIEBEL-FLARSHEIM
Standard Model
Short Wave Generator
——Accepted——
American Medical Assn.
Council on Physio-Therapy

A most acceptable unit for average use. Generally recognized as the best dollar-for-dollar Short Wave value available. Over a thousand now in use—all rendering eminently satisfactory service.

AMPLE POWER is generated for all types of pad and cable therapeutic treatment, including fever therapy. Current for minor office electro-surger is also available.

SIMPLE TO OPERATE—having only a single dial control for each modality—instantly and smoothly regulated—no jumps or steps. Shock proof—an all-purpose unit. Product of electro-medical apparatus manufacturers in business over twenty years.

TWO METHODS OF APPLICATION!

INDUCTANCE CABLE

—as well as—
CONDENSER-PADS

This choice of applicators enables you to use the method best suited to the part being treated. Condenser-Pads are recommended for use on regular surfaces, and Inductance Cable for irregular surfaces. Either modality is quickly and easily applied.

MODERATELY PRICED—TERMS—Easy payments to suit your convenience will make the installation of this unit virtually a self-liquidating investment.

It will pay you to investigate the many advantages of this unit. It is the only Short Wave generator on the market affording the use of two methods of application, namely, the Inductance Cable and Condenser-Pad applicators—which have stood the test of prolonged use—nearly two years! Literature gives complete details.

THE DICK X-RAY COMPANY

MEDICAL ARTS BUILDING MEMPHIS, TENN.

Tear off Coupon and Mail Today—No Obligation

THE DICK X-RAY CO.
Medical Arts Bldg.
Memphis, Tenn.

Please let me have complete details on the L-F Standard Model Short Wave Generator—without any cost to me.

DR. ______________________________

ADDRESS ______________________________

HOYE'S SANITARIUM

"IN THE MOUNTAINS OF MERIDIAN"
Meridian. Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital.

Robert E. Lee Hotel

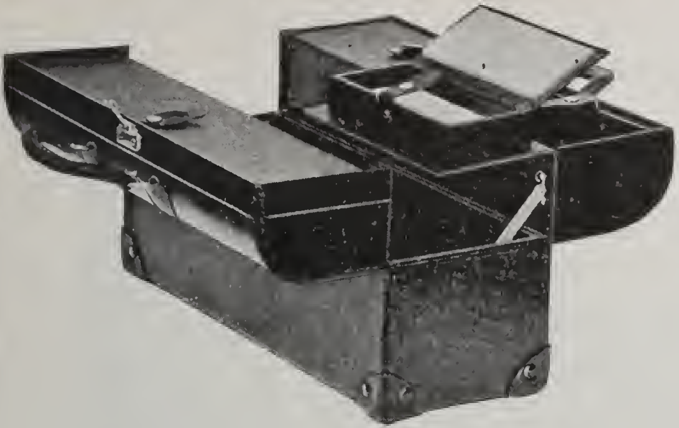
"The High Spot of Southern Hospitality"

Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager STEWART GAMMILL, Jr., Asst. Mgr.



PANDORA THE PHYSICIAN'S BAG THAT IS ALWAYS ORGANIZED

Genuine smooth topgrain cowhide, toughest and finest material possible. Rigid frame never gets out of shape. Concealed hinges, sliding catch, lock, and key. Five compartments. Length 17 inches. Price $19.00 delivered.

MEDICAL AND SURGICAL SUPPLY COMPANY

Corinth, Miss.

THE SOUL OF THE SURGEON

BY DR. RUDOLPH MATAS

Composition Cover ...... 60c; Leather Cover 85c

Send your order to:

The Mississippi Doctor
Booneville, Miss.

J. A. Majors Co.
New Orleans, La.

The Three Muskateers Book Shop
Peabody Hotel Bldg.—Memphis, Tenn.

BAPTIST HOSPITAL
Jackson. Miss.

THE WALLACE SANITARIUM

MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.
O. A. SCHMID, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

---

THE WILLIS C. CAMPBELL HUMERUS SPLINT

3 Sizes Each $7.50

(Either Right or Left)

Wire, Write or Phone. Wall Chart on Request.

Complete Fracture Equipment

RICHARDS MANUFACTURING CO.

Phone 6-2566 **Memphis. Tenn.**

IN THIS ISSUE

HEART DISEASE AND PREGNANCY
Willard R. Wirth, M.D. 1

ARTIFICIAL REST IN PULMONARY TUBERCULOSIS
Duane Carr, M.D. 6

DIABETES MELLITUS
W. H. Ivey, M.D. 9

SODIUM EVIPAL AS AN INTRAVENOUS ANESTHETIC IN SURGERY
Julius L. Levy, M.D. 12

EDITORIALS 15

AMERICAN PUBLIC HEALTH ASS'N. 18

MEETING DATE CHANGED 19

OUR PRESENT KNOWLEDGE OF ACUTE ANTERIOR POLIOMYELITIS: A REVIEW—Dr. Robert A. Strong 19

BOOK REVIEWS 20

TUBERCULOSIS ABSTRACTS 21

DR. COHN TO L. S. U. FACULTY 23

BOOK REVIEWS 24

BOONEVILLE NURSES GRADUATE 25

WOUNDS OF THE HEART
W. W. Crawford, M.D. 26

AMEBIC COLITIS (AMEBIASIS) WITH CASE REPORTS
R. B. Caldwell, M.D. 31

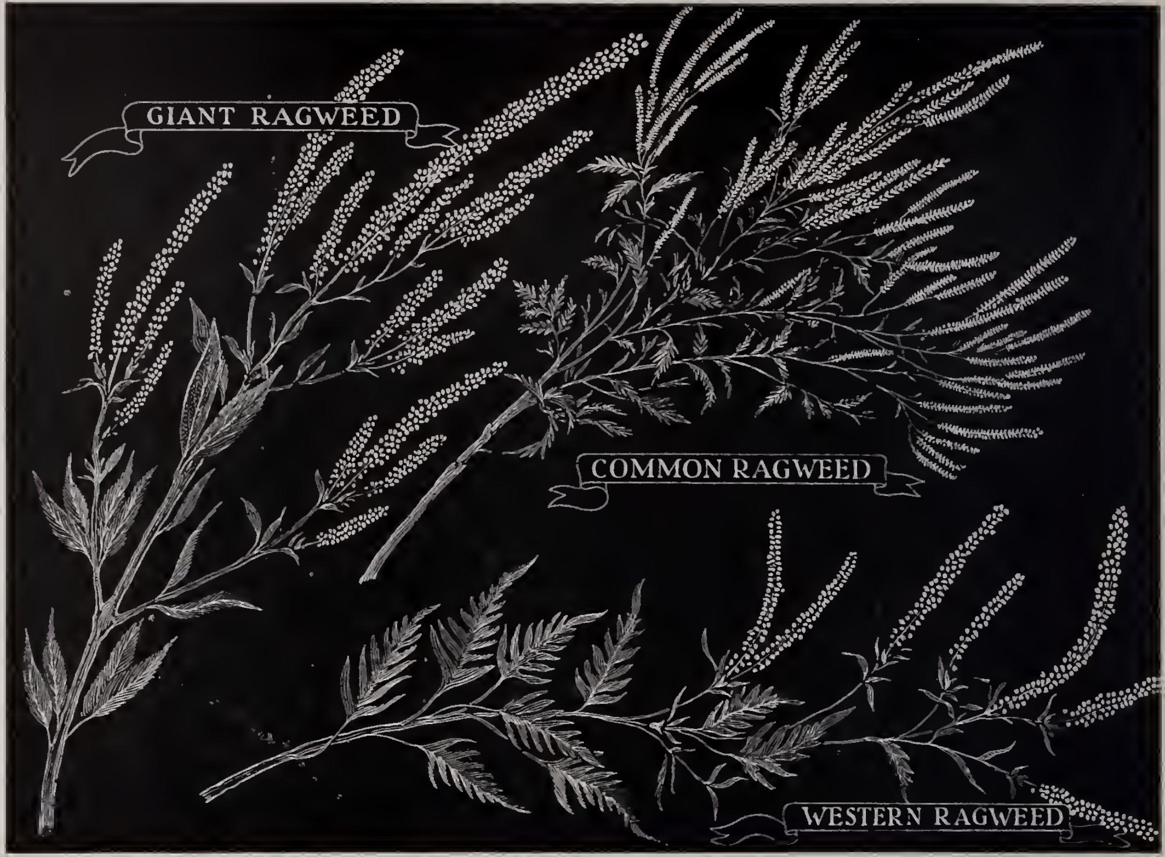
THE ROLE OF SURGERY IN THE TREATMENT OF CHEST DISEASES
John Harter, M.D. 37

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS 41

WOMAN'S AUXILIARY 63

INDEX TO ADVERTISERS

Allison's Wells xiv
Baptist Hospital, Jackson, Miss. vii
Blue Mountain College ....inside back cover
Booneville Printing Co. xvi
Courtesy Cards ....xi, xii, xiii, xiv
Duckworth Drug Co. xv
Eli Lilly & Co. x
H. A. Phillips Artificial Limb Co. xv
Hotel Wm. Len xvii
Houston Hospital, Inc. xvi
Hoye's Sanitarium vi
J. A. Majors Co., and The Three Muskateers Book Shop vii
Jefferson Standard Life Insurance Co. iv
Lynnhurst Sanitarium iv
Magnolia Printing & Supply Co. xiv
Mead Johnson & Co. ....inside front cover
Medical And Surgical Supply Company vii
McKesson & Robbins, Inc. vii
Mississippi Power & Light Co. 63
New Fenwick Sanitarium ....back cover
Parke, Davis & Co. i
Richards Manufacturing Co. viii
Robert E. Lee Hotel vi
The Dick X-Ray Co. v
The Gwinner-Mercer Co. ii
The Wallace Sanitarium viii
U. S. Standard Products Co. xv
William P. Poythress & Co., Inc. iii



Ephedrine Products Lilly

● Topical application of Ephedrine to mucous membranes represents but a single example of the therapeutic value of this drug.

Indications for Ephedrine include asthma, rhinitis, sinusitis, and the manifestations of allergy, such as hay fever and urticaria. Ephedrine in moderate doses is stimulating to the heart and circulatory system. Important advantages of Ephedrine are its relatively prolonged action and effectiveness by oral as well as parenteral administration.

Among the prescription forms of Ephedrine which are available are Ephedrine Inhalants, Lilly, Pulvules (filled capsules), Ampoules, and Hypodermic Tablets.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Heart Disease and Pregnancy*

By WILLARD R. WIRTH, M.D.†
NEW ORLEANS, LA.

The subject of heart disease and pregnancy is a difficult one to discuss because of the many factors and considerations involved. Few definite rules can be established and each case must be considered an individual problem, requiring a careful study and a nicety of judgment equal to that necessary in any other problem in medicine.

Frequency

About two per cent to three per cent of all pregnant women will develop cardiac signs or symptoms requiring investigation. About one-half of these patients will be found to have no cardiac pathology; functional systolic murmurs, usually mitral; or neuro-circulatory ethenia. The remaining one-half, or one per cent to one and a half per cent, or perhaps slightly more, will be found to have organic heart disease. This incidence will vary in different localities dependent upon the incidence of those diseases producing heart disease in young women, and upon the care and accuracy with which observations upon pregnant women are made and recorded.

Types of Heart Disease

Of all organic heart disease in pregnant women chronic rheumatic valvular defects are the most frequent, therefore mitral valvular disease with varying degrees of stenosis will lead all others. This type of cardiac pathology is found in about ninety per cent of all cases of organic heart disease in young women. The remaining ten per cent or less consists of luetic heart disease, congenital defects, hypertension, subacute bacterial endocarditis, thyrotoxicosis, and angina pectoris.

Effect of Pregnancy on Circulation

Pregnancy apparently does place an additional burden upon the heart and circulation, normal or abnormal. This is due to several factors, and it has been estimated that the circulatory apparatus is required to perform twenty-five per cent more work during pregnancy. The blood flow and blood volume is increased; the circulation of the child, the uterus and the placenta, is added to that of the mother; there is an extra weight to be carried; the heart is displaced upward and to the left by the enlarging uterus and there are certain changes in the maternal metabolism. In addition there is the intermittent load placed upon the circulatory apparatus for many hours during labor.

It is not certain whether this increased work produces temporary cardiac enlargement or not. This is difficult to determine because of the displacement of the heart and the size of the breasts, but it seems probable that if there is any cardiac enlargement it is not very great.

In the normal woman this extra burden produces no ill effects and is practically negligible. Even in labor there is seldom more than slight breathlessness and tachycardia. There is no permanent damage produced.

In a damaged heart this extra burden, which is beyond our control, may be too much for it to bear and difficulties may arise. This occurrence will depend upon the functional ability of the damaged heart to handle this additional labor, upon cardiac reserve.

It is not proven whether pregnancy in a cardiac shortens the life expectancy of that woman. This is uncertain because of the usual relatively short life expectancy of young women with organic heart disease, usually rheumatic, and the fact that many die relatively early even without pregnancy.

Diagnosis and Prognosis

A perfectly obvious statement should be made here. The management of these problems necessitates first a proper diagnosis, either of the absence or presence of organic heart disease. This is not always easy to do and upon it depends important considerations. There are many patients today labeled and managed as cardiac cripples in whom there is no organic heart disease, due to a misinterpretation of symptoms and signs, and the reverse is also true. Such a decision should be made with the greatest of care.

---

*Read before the Northeast Mississippi 13-County Medical Society, Houston, Miss., June 15, 1937.

†From the Departments of Medicine, Tulane University School of Medicine, and Tulane Graduate School of Medicine.

The next step is an attempt at prognosis. This is more difficult than usual because one is attempting to foresee events many months in advance. The important consideration in most cases is not so much the type of heart disease as it is the functional ability of the heart.

In addition to these considerations one must evaluate the social and economic factors present. The desire for a child or for more children, the ability economically for the family to care for the child, these become factors.

The proper evaluation of these points require the utmost cooperation of the cardiologist and the obstetrician. In this manner, a tremendous lowering of maternal mortality has been effected in this class of pregnant women.

Insignificant Types

Although, as previously stated, no dogmatic statements can be made and no rules laid down which can be followed absolutely, certain such statements can be made with this mental reservation. Levine lists the following cardiac conditions as those which may be readily dismissed as having no influence on pregnancy, and in such cases the response may be considered practically the same as in a normal heart:

(1). Functional heart disease.

(2). Well compensated mitral insufficiency.

(3). Benign irregularities of the heart. These include sinus arnhythmia, auricular tachycardia, and probably paroxysmal auricular fibrilliation without other evidence of cardiac disease.

(4). Insignificant faint systolic murmurs.

(5). Louder systolic mitral murmurs with or without slight cardiac hypertrophy, with a past history of rheumatic fever indicating organic mitral insufficiency. This is true if there is no evidence of congestive failure and a normal response to exercise.

Significant Types

There are several types of cardiac disorders which do contra-indicate pregnancy, and which when found in a woman already pregnant usually make it inadvisable for pregnancy to continue. In respect to this second class of patients the problem will be more adequately discussed later. The conditions contra-indicating pregnancy are:

(1). Heart failure.

(2). Auricular fibrillation or auricular flutter of the persistent chronic type.

(3). Aortic regurgitation of a marked degree with a Corrigan pulse and cardiac hypertrophy.

(4). Advanced mitral stenosis with cardiac hypertrophy.

(5). Subacute bacterial endocarditis.

(6). Acute rheumatic fever.

In all cases who have or have had signs of heart failure or cardiac decompensation, pregnancy should be forbidden or terminated early. After the fourth month other considerations are involved and this whole question must be further elaborated upon.

Permanent auricular fibrillation or auricular flutter is usually associated with some degree of decompensation. But even without evidence of failure the definitely distributed circulation is too great a risk for the woman.

About aortic regurgitation there still may be some question. Some authorities think that under all circumstances any degree of aortic insufficiency is a contra-indication, worse than mitral stenosis. Others believe that such a case will have to be decided upon its individual merits; that the functional ability of the nyocardium is the important consideration. It seems safest to make the statement as listed, that well marked aortic regurgitation with vascular signs is a contra-indication to pregnancy.

Many cases of mitral stenosis will go through pregnancy and labor without difficulties. The question as to whether such a strain shortens the lives of these women has been discussed. Some develop complications of auricular fibrillation, recurrent active rheumatic infections or cardiac failure during pregnancy or labor. Each case will have to be decided upon its functional ability. It is probably true, however, that the well marked cases of mitral stenosis with cardiac hypertrophy usually do badly, and the risk should be taken only when other considerations seem to make it worth while.

Subacute bacterial endocarditis is usually regarded as one hundred per cent fatal. The diagnosis of this condition is a definite indication for the avoidance of pregnancy or early abortion.

An active acute rheumatic state contra-indicates pregnancy and is an indication for therapeutic abortion in the early months when the heart is definitely involved. Pregnancy should be forbidden for at least one year after the termination of the acute attack, and then only permitted if other criteria set forth permit it. Apart from the effects of the rheumatic infection upon the mother, there is a definite possibility of the infection being passed on, intra-uterine, to the child.

Advice as to First Pregnancy

The woman, known to have cardiac disease, who comes to the physician for advice as to whether she should or should not become pregnant may usually be handled by applying the above dogmatic criteria. Frequently, however, one feels justified in allowing the first pregnancy to occur or continue at a slightly increased risk because of the joy and happiness the mother will secure from having a child. If none of the absolute contra-indications are present and the functional ability is satisfactory as judged by the response to normal exercise, pregnancy may be allowed to occur or continue in such cardiacs. All women known, however, to have cardiac disease should be told to report for examination as soon as they miss one period in order that a diagnosis of pregnancy be made as early as possible, and the proper course of action determined.

In regard to the determination of an adequate functional capacity of the circulation the patient's history is very helpful. There should be no undue shortness of breath on walking or climbing stairs, a normal response to increased exercise, no undue tachycardia or palpitation, and no evidence of failing circulation. Usually there is a slight amount of shortness of breath and slight tachycardia in normal pregnant women, especially in the latter months of pregnancy. This should not be present with the patient at rest. Moderate exercise does cause increased breathlessness and tachycardia but this should return to normal in at least two minutes after the cessation of the exercise. The usual evidences of beginning cardiac failure, dyspnea and swelling of the ankles, are not trustworthy as they occur frequently in normal pregnant women. For this reason the determination of the vital capacity, which is apparently not affected or lowered during the eight months of a normal pregnancy, can be used as a guide for the left circulation, and venous pressure determinations to check the efficiency of the right heart. Rales at the lung bases should also be watched for as a sign of pulmonry congestion, an indication of failure of the left side of the heart. In addition, of course, the routine blood pressure and urine observations should be made.

In any pregnant woman known to have an abnormal heart, regardless of how well she is doing, it is very important that she be kept in bed for three weeks before the expected date of confinement. This is very important, as it rests the heart as much as possible and so builds up cardiac reserve in preparation for the strain of labor. Only in this way can the heart be prepared. Some men have the idea that this preparation can be accomplished by increasing exercise, in the way one would prepare a sprinter for a race or a boxer for a fight. This is absolutely fallacious and not only depletes cardiac reserve, but may actually precipitate cardiac failure.

Second and Third Pregnancies

The advice concerning additional pregnancies becomes another problem. While it is true that the course of the first pregnancy offers some help in the evaluation of the probable course of the second, many things may occur in the interim which might make the second pregnancy inadvisable. If there are no new contra-indications, the functional ability remaining good, the woman should be urged to have a second or third child while young. The single child family is insecure. On the other hand, it seems advisable not to permit more than three children under any circumstances no matter how trivial the cardiac condition. The risk is too great for the price and again the physical and economic burden of a larger family may do more harm than the pregnancies themselves.

Early Pregnancies

The management of a pregnant cardiac will depend upon the duration of pregnancy when the patient is first seen. During the first three months the management is different from that when the patient is seen for the first time after the fourth month.

Without any evidence of failure the patient may be allowed to continue the pregnancy unless there is acute rheumatic carditis, persistent auricular fibrillation or flutter, or subacute bacterial endocarditis. These, or congestive failure or a large heart with a limited functional reserve, are indications for therapeutic aborption and sterilization. ' If for any reason, in spite of the presence of borderline contra-indications, it seems advisable to continue the pregnancy, the patient should be under constant care and her activities greatly limited. Unless the indications are very definite, do not be too hasty in sterilizing the primipara even though the patient is carried successfully through labor and a live baby secured. Any thing may happen to the child shortly after delivery.

If congestive failure develops in the first three months, and there is one child already, the failure should first be treated and then therapeutic abortion performed regardless of the degree of recovery of the heart at that time. It is important to treat the failure by the usual measures first, however.

Later Pregnancies

When seen after the fourth month the problem is more difficult. While it is often necessary to do an abortion at the fifth or sixth month to save the mother, it is usually preferable to attempt to carry the patient along to secure a viable child. The patient should be treated for the failure and kept in bed for the remaining months of the pregnancy.

The choice of the procedure to terminate the pregnancy varies. For the most part it is felt that before term artificial induction is more of a strain on the patient than normal labor. Caesarean section is preferred by many. This choice seems to depend upon whether the obstetrician thinks the labor will be easy or difficult. If an easy labor is anticipated and the condition of the circulation satisfactory, section should be avoided. Otherwise section can be done, preferable under local if possible. The advantage of the section is in those cases where sterilization has been decided upon and the tubes can then be tied off at the same time. Of the anesthetics, ether seems to be the one of choice. With advanced heart disease and a doubtful circulation, Caesarean section with ether anesthesia, or local, disturbs the patient much less than delivery from below.

It is important to emphasize that the failure be treated adequately if possible before the termination of the pregnancy is attempted. Post-partal care becomes very important, and a prolonged bed rest for several weeks should follow.

Labor

Often a patient begins to do poorly during labor. The known cardiac should be watched very carefully at this time, and all attempts made to secure maximum rest and relief from this strain. Mayshine or other sedatives should be used for this purpose. The blood pressure and pulse rate should be recorded frequently, and the bases of the lungs examined for rales. The appearnce of basal rales should cause the obstetrician to speed the delivery, carefully however, if possible, since it indicates a failing circulation. Even before the appearance of the rales, an increase of the cardiac rate beyond 110 per minute with an increase of the respiratory rate beyond 24 per minute between pains offers the same indication.

Immediately after the delivery of the child, the sudden decrease of intra-abdominal pressure may precipitate circulatory collapse. This is sometimes called splanchnic shock. It is important that this be guarded against as much as possible, and the best method is by the application of a very tight abdominal binder immediately after the birth of the child. The binder should be in place under the patient for immediate application. This is a simple but important and useful point.

Treatment of Cardiac Failure

The same measures, digitalization, rest, restriction of fluids and salt, are employed in treating cardiac failure during pregnancy as under any other circumstances. The only caution is that digitalization be carried on slowly in order to avoid the nausea and vomiting of toxicity. As stated before, one should always attempt to restore compensation as much as possible before attempting any procedure of intervention. If three weeks of treatment is not adequate, it is probable that delay is unnecessary and Caesarean section and sterilization is advisable.

SUMMARY

(1). Pregnancy increases the work of the normal and diseased heart.

(2). Rather definite insignificant and significant types of cardiac pathology are enumerated.

(3). The management of women with cardiac disease contemplating pregnancy, and in various stages of pregnancy, is discussed.

(4). The problem of heart disease and pregnancy is one of the most difficult in medicine, calling for the utmost cooperation between the obstetrician and the cardiologist.

References

1. Johnstone, Ben. I: Heart Disease and Pregnancy, J. Mich. State Med. Soc., 32: 479, 1933.
2. Levine, Samuel A.: Clinical Disease, W. B. Saunders, Philadelphia, 1936.
3. Lewis, Sir Thomas: Diseases of the Heart, MacMillan Company, New York, 1933.
4. Scott, Wm. A., and Henderson, Nelson: Pregnancy and Rheumatic Heart Disease, Am. J. Obstet. and Gynec.: 27: 342, 1934.
5. White, Paul D.: Heart Disease, MacMillan Company, New York, 1932.

Artificial Rest In Pulmonary Tuberculosis

By DUANE CARR, M.D.*
MEMPHIS, TENN.

The tubercle bacillus causes symptoms of a "cold" or "flu" when it invades the respiratory tract acutely because, like the pneumococcus, streptococcus and other pathogenic organisms, it produces an exotoxin which is circulated through the blood stream and produces a systemic reaction. This accounts for the lassitude, easy fatigue, bone muscle pains, loss of appetite, indigestion, and nervousness which often accompany the beginning of its invasion. As the infection becomes chronic many of these symptoms may diminish or disappear, but the exotoxins are still being poured into the blood stream. Toxic damage to the kidneys, heart muscle, liver and other organs can be demonstrated in every case of tuberculosis of long standing, and hyalin degeneration of all organs is a uniform finding at autopsy of all tuberculous patients. It is obvious, therefore, that not only must the active infection be controlled to save the patient's life, but foci of tuberculous infection must be eradicated *as soon as possible* to prevent damage of a lasting nature to organs whose functions are essential to good health.

I propose to indicate in this brief paper how artificial rest can be applied to the time honored bed rest treatment, and to show why it will make recovery more certain and shorten the time required for convalescence. The additional benefits of artificial rest and relaxation are (1) the early elimination of tubercle bacilli from the sputum, protecting other members of the family and the patient's associates, and (2) the relatively prompt elimination of the exotoxins which otherwise cause damage to the patient's vital organs.

Tuberculosis is healed when all foci of infection and all living organisms are surrounded by fibrous tissue and walled off from the rest of the body, and when all cavities are closed. Except for a certain demonstrated amount of phagocytosis by the leukocyte, this process is the only known defense the body has against the invasion of the organism. Fibrosis begins with the growth of microscopically fine fibroblasts which, *if undisturbed,* gradually surround the focus with a delicate network of fibrils that slowly grows denser and stronger until a firm wall of fibrous tissue is built around the tubercle or focus indicated.

A tuberculous cavity is a focus of infection producing tubercle-laden sputum which is always a menace to healthy lung tissue. Cavities must close by contraction of their fibrous tissue walls since the lung has no ability to produce new lung tissue, and granulation tissue grows sparingly in the lung. The total lung volume must shrink as the cavity contracts, if it is able to contract, and to help and hasten this process *relaxation* of the lung is necessary.

Nature can cause fixation of the diseased lung tissue and will in the course of time make the lung contract, if the patient's constitution can resist the effects of the disease long enough to allow massive scar tissue to form. Unfortunately, the achitecturally strong arch of the ribs and the powerful diaphragm resist any effort of the lung to contract, while every movement of inspiration raises the roof of the thorax, expands the ribs, and pulls down the diaphragm, expanding the lung like an accordion. This occurs 30,000,000 times a day, even when the patient is at bed rest.

The benefits of bed rest in tuberculosis are well known to all. Lessening the bodily activity reduces the demand of the tissues for oxygen, decreases the amount of carbon dioxide to be exhaled and diminishes the depth, and to some extent the frequency of respiration. Various forms of posture, sand bags, and other measures can further reduce the activity of the thorax and lungs. Bed rest is essential in the treatment of tuberculosis. However, it is possible still further to increase the *rest* obtained by a diseased lung and to offer it, in addition, *relaxation* by any one of several forms of artificial collapse treatment.

---

*From the Department of Surgery, University of Tennessee College of Medicine.

The simplest form of artificial rest and relaxation is the phrenic nerve interruption, either temporary or permanent, by means of which the action of the diaphragm is stopped and the accordion-like stretching and contracting of the lung eliminated. Rest is the important factor in this form of treatment, though at the same time a certain degree of relaxation is obtained. The flaccid diaphragm will be pulled up into the affected chest just as far as the fibrosis in the lung above chooses to pull it. The rise of the diaphragm indicates the amount of *fibrotic pull* from above and it in no way *compresses* the lung, nor does it collapse any healthy, functioning lung tissue. The phrenic nerve interrupted is a minor operation and its effect is relatively less than that of other procedures, and it is therefore most useful in early, fresh lesions with small, soft-walled cavities. Its effect is likewise almost specific for stopping pulmonary hemorrhage.

Pneumothorax is one of the oldest, most widely used and most effective forms of artificial rest in pulmonary tuberculosis. By the repeated instillation of measured quantities of air into the pleural space under controlled pressures, any degree of rest and relaxation desired can be obtained if there are no intrapleural adhesions to prevent the separation of the lung from the thoracic wall and diaphragm. Toxic absorption from the diseased lung is frequently eliminated in two weeks, the sputum rendered negative, and convalescence begun. It is a procedure which can be applied to both lungs simultaneously, under certain conditions, when the disease is bilateral. To be effective, pneumothorax must be carried out not less than two years, although throughout much of that time the patient may be ambulatory and even resume his occupation while still undergoing treatment.

Unfortunately, many patients for whom pneumothorax would be desirable have pleural adhesions which prevent a satisfactory collapse of the lung. If these adhesions are few enough in number and small enough in extent to be stretched to isolated strings, bands, or even sheets, it is possible to divide them surgically with cautery, either through a thoracoscope or by direct open operation. Approximately one-half of the pneumothraces which are only partially effective in closing cavities and arresting the disease can be converted into adequate pneumothoraces by one of these forms of intrapleural pneumolysis. As time passes, the untreated patient with tuberculosis tends to develop more and more adhesions, which is a very important argument in favor of beginning pneumothorax early in the disease.

Thoracoplasty is an operation at which sections of the ribs from (and including) the transverse processes of the spine are removed in stages, the lengths of rib removed depending upon the size, consistency, location and contractility of the cavity or cavities for which the operation is performed. This operation is used only on those patients whose pleural adhesions prevent an adequate pneumothorax or in whom an established pneumothorax has failed to close the cavities and arrest the disease. The ribs are removed subperiosteally, leaving the periosteal rib beds to regenerate new ribs and reestablish a stable thoracic wall. Granting a "good lung" on the opposite side, or one in which no active infection exists, cavities of almost any size can be closed by this operation, but the smaller the cavity the fewer the ribs to be removed and the fewer the stages. Coryllos calls the thoracoplasty indication "evidence of a case mishandled in its early stages."

Other measures of artificial rest and relaxation are available for special indications. The extrapleural pneumolysis consists of both layers of pleura from the thoracic wall in the plane of the delicate endothoracic fascia, when the two pleural layers are completely adhered together. The space and relaxation developed are maintained with paraffin or some other inert substance. The operation has the advantage of being performed in one stage and is applicable to bilateral cases and older individuals, but its relaxation is purely local and it is therefore not so uniformly successful as a thoracoplasty. The intercostal neurectomy, either temporary or permanent, decreases the expansion and contraction of the ribs, giving additioal rest to extensive and toxic lesions of the caseous-pneumonic type, but it affords little relaxation and does little to close up cavities. Scaleniectomy, sectioning of the scalene muscles, further decreases the accordion-like expansion of the lungs when applied with a phrenic nerve interruption, but its indications are relatively few.

COMMENT

In the preceding paragraphs the rationale of artificial rest and relaxation in pulmonary tuberculosis has been presented and the major procedures briefly defined. In the brief space of this article it is impossible to give lengthy statistics regarding the results obtained from the use of these various procedures. However, in Southern Michigan where collapse therapy in all its phases is being applied to every fit subject, institutions are reporting five times as many patients discharged arrested, with a reduction of their annual mortality rate to less than half that of the previous decade. The collapse therapy program has also shortened the hospitalization time per patient, allowed a more rapid turnover, and increased the number of patients treated without enlarging bed capacity. Extensive literature is appearing on the various phases of collapse therapy from every country in the world and in every language. Within the past decade its importance in the treatment of pulmonary tuberculosis has met with world-wide recognition.

From the standpoint of each of us practicing physicians it is gratifying to see the rapid improvement in our patients' condition when collapse therapy is applied and it is comforting to know that this improvement need not be a temporary phase of the disease. It is important to begin minor collapse measures in the early stages of the disease so that major procedures need not be employed later, and so that the infection may not insidiously progress to a point beyond all help. Time is known to be The Great Healer, but in tuberculosis Time may be the Chief Executioner.

Diabetes Mellitus*

By W. H. IVEY, M.D.
HOUSTON, MISS.

Diabetes Mellitus is a disburbance of the carbohydrate metabolism caused by a deficiency of insulin, which results in an increase of sugar in the blood because the body is unable to store and burn sugar. The insulin deficiency is the result of interference with the Islands of Langerhans of the pancreas where insulin is produced.

There is an associated disturbance of the fat metabolism and also of protein metabolism, the exact nature of which at present is not clear.

Incidence of Diabetes:—

Diabetes is widespread in the United States. Approximately 1,500,000 people in our country have the disease and over 2,000,000 other persons now living will sooner or later develop the disease.

There was 28,000 deaths from diabetes in 1934 and it now ranks 9th in the cause of death. With the mortality rates now prevailing 27 out of every 1000 girl babies and 15 out of every 1000 boy babies will eventually succumb to the disease.

The Effect of Work on the Incidence of Diabetes:—

Among people in the professions and higher ranks of business life, the mortality rate is 25 per cent above average.

At the other end of the scale the mortality rate is 10 per cent below the average among the group which includes skilled workers and agricultural laborers. In other words, hard work is a good protection against diabetes. Further proof of this is in the fact that the rural population has a 60 per cent mortality rate than the cities.

Age in Relation to Diabetes:—

50 per cent of diabetes have the onset of the disease between the ages of 40 and 60 years. 70 per cent have the onset between the ages of 40 and 80 years.

Obesity in Relation to Diabetes:—

Overweight is the chief constitutional symptom in the onset of diabetes. Among Dr. Joslin's patients 78 per cent of the males and 83 per cent of the females were overweight.

Heredity:—

30 per cent of all cases have a heredity basis but of the juvenile diabetics 50 per cent are not congenital; however, people do inherit a diabetic tendency.

Diagnosis:—

If the disease is not discovered early during a physical examination, its presence becomes evident through the symptoms of hunger, thirst, copious urination, emaciation, and a sense of physical weakness. If in the presence of these conditions, appropriate tests show the presence of sugar, the patient most probably has diabetes. In the majority of cases, tests of the urine alone will be sufficient The urine should be tested at 4 hour intervals during a period of 24 hours. Sugar occurs most often 2 to 4 hours after ingestion of food. In order to be positive of a diagnosis of diabetes, a glucose tolerance test should be performed for there is a condition in which sugar is present in the urine, yet diabetes is not present. This condition is due to a low renal threshold to sugar and although the blood sugar remains normal, sugar is spilled over into the urine because of the lowered renal threshold.

Insulin:—

Up to fifteen years ago the development of symptoms of diabetes was a grave matter. Such a diagnosis means a complete change in the patient's life. No longer could he live normally for if he ignored his condition and continued to live as previously, he would in all probability become progressively worse. If he was a young person, the breakdown was extremely rapid and death certain. Practically all of these young diebetics, and a large percentage of the older ones, succumbed to diabetic coma. Then almost overnight, the situation changed. In 1922 Dr. Banting and Professor Best succeeded in producing insulin. This new substance released the diabetic from the bondage of invalidism and he could now live a full life which differed little from that of a normal person. Insulin increases the ability of the body cells to store and use carbohydrates. Its action begins within a few minutes and it is most active from 1 to 4 hours after injection.

---

*Read before the Northeast Mississippi 13-County Medical Society, Houston, Miss., June 15, 1937.

In the treatment of diabetes with insulin the ideal method for its use and administration would be one that approaches the action of the pancreas in continuously secreting insulin. This cannot be done with regular insulin. The body has other means of regulating the blood sugar than to vary the rate of insulin secretion and this is the reason why in some cases there will be wide variations of the blood sugar.

Hagedorn and his associates working in the Steno Memorial Hospital of Copenhagen discovered that by combining regular insulin with protamine, which is a protein derived from the sperm of a trout, a product was obtained which when used, more nearly approximates the action of the pancreas in secreting insulin. The protamine retards the absorption of the insulin and consequently the insulin is absorbed more slowly and over a larger period of time. Recently zinc has been added to the preparation and it is now manufactured in this country by Eli Lilly Company and the Merck Company under the name of Protamine Zinc Insulin.

Dr. Hagedorn has reported 85 cases of diabetes treated with protamine insulin. In these cases no ill effects were observed. The injection was painless, there was no local reaction and protein reaction did not occur. The investigation showed that the sharp peak effect usually seen three or four hours after the injection of ordinary insulin is avoided; furthermore, that the effect of protamine insulin is prolonged—roughly—about twice as long as regular insulin. Joslin and others have confirmed this work in America.

Indication for Use:—

1. Recent onset can be controlled with only one dose.
2. A high fasting blood sugar.
3. Multiplicity of dosage can be avoided.
4. Sensitivity to insulin as indicated by frequency of reaction.
5. Hepatomegaly: Protamine Zinc Insulin reduces the size of the liver.

Method of Using Protamine Insulin:—

1. Injection made subcutaneously.
2. Protamine Zinc Insulin and regular insulin are not to be injected at the same site.
3. Not to be used intravenously.
4. Not recommended for treatment of coma—action is too slow.
5. A period of several days may elapse before the full therapeutic effect of Protamine Insulin will be obtained and unless the diabetic's condition is kept under control by sustaining doses of insulin, glycosuria and hyperglycemia may result.
6. Method of use which at present is most frequently employed is the injection of Protamine Zinc Insulin before breakfast accompanied by small doses of regular insulin.

Diet:—

A diet that is ordinarily suitable is one that:

1. Maintains slight undernutrition by restricting total calories.
2. Contains a protein allowance ranging between 1 and 1.5 grams per kilogram of body weight for adults and up to 3 grams per kilogram of body weight for children.
3. Distributes the remaining calories on the basis of from 1 to 1.5 grams of carbohydrate for each gram of fat.

It has been demonstrated by Joslin and others that it is best to remain within a limit of 200 grams of carbohydrate and 150 grams of fat.

The basal caloric requirement for all practical purposes is estimated to be 25 calories per kilogram of body weight or if a basal caloric chart is obtainable it may be used. To this must be added from 10 to 50 per cent depending upon the activity of the individual. Best results are obtained when the patient is maintained at about 5 pounds underweight.

In general, the best guide for determining the maintenance of caloric requirement is the general condition of the patient, especially as regards weight, strength, and, in children, growth.

For Children:—

The same principles apply; however, the intake of protein is higher—1.5 to 3 grams per kilogram and the diet must be increased as growth occurs. About 5 per cent to 10 per cent should be added every 6 months.

Complications of Diabetes:—

The most serious complications that we have to deal with are coma, insulin reaction and arterio-sclerosis.

Comparison of coma and insulin reaction:

Acidosis	*Insulin Shock*
History: Infection or dietary indiscretion, loss of weight and strength, thirst, hunger, drowsiness.	Too much insulin, insufficient food, over exertion.
Onset: Gradual, progressive	Sudden, profound
Breath: Sweet	Normal
Skin: Dry	Moist
Pupils: Dilated	Normal or contracted
Pulse: Rapid, weak	Rapid, full
Tissues: Dehydrated	Normal
Urine: Sugar, acetone, diabetic acid	Normal
Blood: Elevated sugar and cholesterol	Low in sugar

Treatment of Coma:

1. Force fluids by mouth, subcutaneously, rectally and lastly intravenously.
2. Caffeine sodio benzoate to stimulate heart and for action on kidneys.
3. Insulin 50 units subcutaneously. In ½ to 1 hour give 30 to 50 units.
4. Obtain specimens of urine every ½ hour.
5. Wash out stomach.
6. 50 grams of glucose in 12 hours.
7. Quiet place, keep warm.
8. Saline enema.

Arterio-sclerosis:—

This condition is found frequently in diabetics, especially in adults. The exact cause of this has not been determined. It is thought by many authors that it is due to the high cholesterol content of the blood. By feeding a diet which contains a sufficient insulin, the cholesterol content of the blood is maintained and the danger of arterio-sclerosis is lessened.

Comment:—

A brief survey of Diabetes Mellitus has been presented with particular reference to the incidence of diabetes and to use of Protamine Zinc Insulin.

Sodium Evipal As An Intravenous Anesthetic In Surgery

JULIUS L. LEVY, M.D.
CLARKSDALE, MISS.

In many particulars evipal soluble is dissimilar and superior to other anesthetic agents, and at the same time appears to have a wide margin of safety. Chemically, it is the sodium salt of N-methylcyclohexenylmethylmalonylurea which is readily soluble in water.

Animal experimentation, according to authentic reports, indicates that from 4 to 5 times the narcotizing dose is the lethal dose in dogs, and 3.3 times the anesthetic dose is the lethal dose for the cat. There is, therefore, a safe zone for administration in these animals.

The striking feature about evipal soluble is the rapidity with which anesthesia is induced and likewise its rapid elimination, so that the entire phase from initial induction to complete recovery may not consume over thirty minutes. If this is attended with only a negligible risk, it is apparent that the field for such an anesthetic is certainly very extensive. It is believed that the drug is decomposed by oxidation in the liver. It was found that in the rabbit, half of a minimal narcotic dose was detoxified in thirteen minutes. In human beings, studies of the blood chemistry indicate that the decomposition is not accompanied by any marked changes in the chemistry of the blood and no great variation in the pulse, blood pressure and respiration.

The administration is simple. One gram of evipal soluble is dissolved in 10 c.c. of distilled water (both supplied in ampules) and drawn into a syringe. The weight of the patient is the chief guide in the dosage, 6 c.c. of the solution being used for 100 pounds of body weight, and not exceeding 10 c.c. at any one anesthetic period. For persons less than 100 pounds in weight, the dose must be reduced accordingly. Allowance should be made for debilitated, anemic, or other patients whose general physicial condition seems much below the average, and the dose should be relatively less. No special measurement is available for such dosage, but the thumb rule of clinical medicine should be sufficient.

The injection is made in the right or left median basilic or any other suitable vein, consuming only a minute or less for the introduction of at least half of the proposed dose. If evipal soluble is administered very slowly, for instance, in 3 or 4 minutes, it is broken down by the liver so rapidly that anesthesia is never complete. At the end of one minute the patient is usually asleep, and the remainder of the dose is injected without withdrawing the needle until the entire amount required is put into the circulation.

The sleep is often preceded by an audible yawn, then the jaw relaxes and deep narcosis with complete relaxation follows in two or three minutes from the moment the administration is begun. The color of he skin remains unchanged, the pulse may be temporarily acclerated, and in most instances there is a moderate fall in blood pressure, which usually is re-established at the normal level before the expiration of the anesthesia. Depending upon the dosage, the complete anesthesia lasts from 10 to 20 minutes. The author has been conservative and cautious in the use of evipal soluble, but believes that this period of anesthesia may be safely prolonged by the almost continuous administration of small doses of the drug. Recovery from the anesthesia is prompt, except in the feeble or weak. The average patient will show signs of returning consciousness in 20 minutes, and may react completely without nausea or discomfort in 30 minutes. Recovery is not accompanied by excitation. Many patients do not remain in bed and are ready for their next meal. Two office patients left without assistance an hour and a half after minor operations under evipal soluble.

No contra-indication is known to the administration of evipal soluble which does not apply to any narcotic or anesthetic. As detoxication of evipal soluble is probably accomplished by the liver, it would seem logical to withhold it in cases of marked impairment of liver function, but no cases have been reported in which demonstrable liver damage has followed its use.

The author's experience has been brief but quite convincing, and the following are some of the facts and impressions in 50 cases: In this consecutive series, no selection was made; those patients needing a minor surgical procedure were given evipal soluble regardless of general condition. The ages ranged from 10 to 70 years. **Technic.** The dose of evipal soluble was regulated by giving 6 c.c. of the 10 per cent solution for every 100 pounds of body weight, the first half of the calculated dose being injected at the rate of 1 c.c. per 15 seconds. When a small dose put the patient to sleep and a very short procedure was contemplated, such as incising a boil or an abscess, a little additional amount of the drug was added. In the last few cases the duration of anesthesia was extended by injecting from 1 to 3 c.c. additional during an operation if it became evident that the dose previously given was not sufficient to carry out the entire procedure. At no time in any case did I feel the slightest uneasiness. The patient slept calmly and evenly, with no color changes in the skin or untoward developments. The recovery from the anesthesia was quiet and with a feeling of well being, as remarked by the various patients. A few very nervous excited patients were disturbed. The blood pressure usually fell a variable degree, the average fall being 22 m.m. Hg. A small percentage of patients showed a rise in blood pressure the average being 24 m.m. Hg. In these cases, relaxation was not complete. The surgical procedure was not materially affected, but there was enough stimulation to create a mild rigidity and, with this, the blood pressure rose. This condition might have been due to several factors, particularly to slow administration of the drug, allowing detoxification of the anesthetic almost as rapidly as it was administered. Once when two minutes were used to inject the anesthetic solution (4 c.c.), the patient never became completely unconscious. If the operation was begun before the patient was well relaxed, the stimulation created a state of incomplete relaxation.

The pulse rate generally increased, the average rise being 26 per minute. In three cases, however, the rate decreased an average of 17 beats and the blood pressure dropped an average of 18 m.m.Hg. In these cases there was extreme excitability before the administration of the anesthetic.

There was a predominance of colored patients in this series. They were usually quite apprehensive before operation, and in three instances an excited postoperative recovery was present. After the preoperative use of morphine-atropine, the excitation did not occur.

The blood chemistry in 20 cases, including studies of the sugar, urea nitrogen and carbon dioxide combining power, made preoperatively and post operatively, failed to show any demonstrable changes.

Among the cases in which epival soluble was used there were included fracture manipulations; ischiorectal abscesses; anal fissures and fistulas; various abscesses, burn debridements; skin grafts; urethral dilations; removal of bullets; incision and drainage for cellulitis; genito-urinary instrumentation; radium application and insertion; biopsies; amputations and appendectomies.

The conditions with which these operative procedures were associated included diabetes; pulmonary tuberculosis; lobar pneumonia; acute and chronic alcoholism; nephritis; syphilis; and secondary anemia.

There was no postoperative nausea, vomiting or headache except in one patient, who vomited 4 hours after administration of evipal soluble. None of the ill effect usually ascribed to a general anesthetic occurred. In one instance within 45 minutes after an extensive abscess of the thigh was drained, the patient was found playing cards.

SUMMARY

The prime requisite for a good anesthetic agent is safety. The author's experience has not been sufficient to warrant any statement in respect to this feature of evipal soluble, except that in not a single instance did the life of the patient seem endangered and in no case was any means of resuscitation or stimulation found necessary. The report of the Anesthetics Committee of the British Medical Research Council notes but one death in 25,000 cases as reported in a survey of the German literature.

The anesthesia induced by evipal soluble is swift, deep and brief. Necessarily the operation for which it may be used must be governed by these considerations, and any marked deviation will mean an unsatisfactory anesthesia. Therefore, it is important that evipal soluble should not be regarded as a universal anesthetic, but as one to be chosen for a particular type of operation.

It is possible that, with more experience, the duration of the complete anesthesia may be prolonged either by increasing the dose, or by both increasing the amount and giving it in fractional doses. Only those familar with its administration should undertake to explore this field.

The administration of evipal soluble should be entrusted to an anesthetist or some one equally qualified to recognize the various stages of anesthesia and to assume full responsibility. The administration and control of this anesthesia seem so easy that many, no doubt, will be tempted to use it without due regard for a possible emergency, and a word of caution is necessary. The very simplicity of the method may lead to carelessness.

The inexpensive and compact equipment that is used with evipal soluble offers advantages not possible with any gas anesthesia.

IN CONCLUSION, I wish to emphasize a few points:

(1) Evipal is a most excellent anesthetic in selected cases.

(2) Its administration is not without danger and should not be given carelessly.

(3) Someone should always be present to watch the patient.

(4) It may be used in the office.

(5) It is a most valuable adjunct to local or sacral anesthesia in nervous patients.

(6) If the above mentioned technique for administration be carefully followed most complications will be avoided.

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor and Mgr.
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Postgraduate Medical Assembly

Mid-South Post Graduate Medical Assembly
Editors:

E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dewell Gann, Jr., M.D.

Mississippi State Medical Association

W. L. Little .... President
Joe E. Green .... President-Elect

Editors:

Leon S. Lippincott, M.D. D. W. Jones, M.D.
G. S. Bryan, M.D.

Councilors

J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J Gould Gardner, M.D.
Thomas J. Brown, M.D. W. H. Frizell, M.D.
D. J. Williams, M. D.

Published monthly at Booneville, Mississippi.

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act of March 3, 1870.

POSTGRADUATE MEDICAL EDUCATION

It should be a source of great satisfaction to the physicians of Mississippi to know that postgraduate medical extension education is to be a permanent program in the state. The Committee on Postgraduate Medical Education, members of which represent the outstanding medical organizations of Mississippi, has successfully completed the sponsorship of two and one-half years of extension courses in obstetrics and pediatrics. This committee realized the desirability of continuing this work in other branches of medicine, and the Division of Medical Extension of Tulane University was asked to conduct this program with the active cooperation of the existing committee in Mississippi. This is a very definite step forward in medical education and the physicians of the state are to be congratulated upon their foresight and progressiveness in aligning themselves with a representative medical school for the sake of perpetuating medical education in the state. A new course in some branch of medicine will be given each year, and even two or more courses may be carried on in different parts of the state at the same time. The services of the best prepared men will be secured to conduct the coures, and if such men are not available at Tulane University exchange clinicians from other medical centers will be asked to conduct the instructional work. Mississippi physicians should be proud of the fact that they are one of the first, if not the first, body of medical men who have placed medical education on a permanent basis within their state. Many other states will follow the lead which has been taken by the physicians of Mississippi.

The medical profession is really and truly made up of four branches represented by the doctor, the dentist, the nurse and the pharmacist. They should all be educated with this in view. These divisions of a great profession do not cooperate as closely as they might. They should though from the standpoint of service to the people, as an aid in protecting them against greed and fakery, and as a matter of economical justice to each division of the quartet. We have a service to perform, dignified and Divine. To do it to the best advantage to ourselves and to our clientele we must act as a unit. The pharmacist is the twin brother of the practitioner, or should be. If medicine yet has a place in the treatment of the sick patient, the doctor and the pharmacist should certainly be very cooperative. It is good economy for your patient to utilize the services of the able and sincere pharmacist. He is an aid and a protection to the doctor. Pharmacists really should not practice medicine, much less surgery, neither should doctors try to dispense their own drugs as a rule. It is not good consistency for the pharmacist to push patent medicines in the front of the store while he has compounded in the back of it the doctor's prescriptions. Doctors would do well to write more prescriptions rather than tell his patient to go to the drug store and call for a bottle of Lydia Pinkham and try it. It just looks like that if there is such a thing as the "practice of medicine" the pharmacist and the practitioner had better get on close terms. By so doing they can save the people a lot of money and help to protect themselves from the high powered detailers.

John D. Rockefeller, Sr., who recently died at the age of 97 years was the money making man of all the ages. His son, John D., Jr., has been and is the "money giving" man of all time. Rockefeller, Sr., gave money as well as made it, but his son has made a specialty of giving or we had better say, investing for the good of humanity. John D. Rockefeller, Jr., has made a deep study of investing money where it will do the most good. He has taken it as a great responsibility and has studied it as no other man in all the world has. Through churches, schools and medical research the good this money has done can hardly be estimated, the good it has done is probably in its infancy. There was a time when there was some prejudice against this money, but this is now gone in the main and good will and appreciation is now behind it. Millions of dollars have gone into medical schools to make them more efficient. Research laboratories are busy day and night studying the cause of disease and the treatment. The Rockefeller Foundation has done a great work in ridding this country, our Southland, of yellow fever, typhoid and hookworms. Many people think how glorious it would be to have this money to invest in this way. It is a serious duty for Mr. Rockefeller, Jr. While we envy this great giver, we might have the same blessing, thousands of people might, in a smaller way. Many people could invest hundred, five hundred, or a thousand dollars in a church, in a college, in a small hospital in their own town or in office supplies for a worthy physician who is giving his life for the benefit of the sick and half of it for no pay at all. Some people could see just one child through high school to where it could make its own way on through college. He could pay for a little medicine for a child or for some food which is often needed worse. He might furnish a little work for a worthy boy or girl and help in this way. Some could buy even one book for an ambitious boy that might mean everything to him. If no more you can invest a word of good will and encouragement to the person who is struggling against odds. We could all have the Rockefeller blessing and in receiving it bless the world abundantly.—*The Booneville Independent.*

Tuberculosis is now largely a surgical disease. The prevention of tuberculosis is largely dependent upon surgery. If it is good in the advanced cases, it is still better in the very early cases as we see it. So early diagnosis and early surgical treatment of tuberculosis is the basis for annihilation. As far as we know Mississippi has only one man trained to do complicated chest surgery caused by tuberculosis. But we should not be discouraged. It will be only a short while until the complicated surgery will not be here to do, not so much of it. It was only a short time ago when the Wertheim operation came into vogue for carcinoma of the cervix and it was only the noted of surgery that did it. This operation did not solve any problem, but saved a few lives perhaps. Early diagnosis and radiation replaced this with many more cures. Only the masters tackled the aneurysms in years past. Glory to their all but divine skill. But these complicated operations did not solve the problem. Prevention, early diagnosis and early treatment, are soon to drive into oblivion the aneurysm caused by syphilis. No real medical problem is going to be solved until the rank and file in the profession have a working knowledge of it and put forth a united effort. Mississippi has a chance to lead the world in the fight against tuberculosis if we will only go forward. Our Sanatorium can be a clearing house for the complicated cases and a great teaching center. Then if we add a few rooms to each general hospital in the state and one or two men trained to make early diagnosis and do the simplest surgery we will soon be on the way to a great success in a most important fight.

With a well-equipped charity hospital at Jackson as a clearing center for the cripples chronic cases, and for cases that need to be isolated, we could establish an internship by the aid of the other hospitals and the Sanatorium at Magee that would be a credit to the state.

The medical profession can not do the charity practice in the future that it has done in the past. The amount is increasing in this machine age, people are demanding more and better medical service, the cost of medical education and the doctor's equipment is increasing, the people able to pay fancy fees are decreasing. The problem is to render this service, meet the demands, and at the same time leave the people free to choose their physician and their hospital.

Post-Graduate Medical servide brought out to the busy practitioner is a very distinct service. The doctor of the small town and rural community certainly deserves a little break.

To the Medical Profession of Mississippi:

Dr. Maxwell E. Lapham, director, Medical Extension Education of Tulane University School of Medicine has no doubt submitted a statement for the next issue of *The Mississippi Doctor,* telling of the plans of the Post-Graduate Medical Education Committee formulated at a meeting in Jackson on June 29.

The courses in pediatrics by Dr. Robert A. Strong will continue until the state has been completely covered and every physician has had an opportunity to benefit from the course.

During July, courses will be begun in the diagnosis and treatment of venereal diseases, for which the services of an outstanding lecturer will be secured; a man thoroughly capable of imparting the very latest information on the diagnosis and treatment of syphilis and gonorrhea.

A registration fee of $5 00 is necessary for these courses and succeeding course in internal medicine, surgery, and other medical subjects which Mississippi physicians may elect to have presented to them.

During the depression years the registration fee in Mississippi for such courses was lowered to $3.00, although no other state had fees under $5.00, and many of them were $10.00 to $25.00.

In addition to the actual lectures and consultation services rendered by these experienced clinicians, a bound copy of all the lectures is presented to each physician at the end of the course. This volume makes an excellent text-book and is in itself well worth $5.00 registration fee.

The course in pediatrics by Dr. Strong and the course in the diagnosis and treatment of venereal diseases will both get under way at the same time, although they will not be conducted at the same place at the same time. The Commonwealth Fund increased its appropriation in order that we may have two courses going in the state. The State Medical Association, Tulane University, and the State Board of Health all make the same appropriations as heretofore for this work. It is anticipated that the contributing agencies will cooperate in the future as in the past and that Mississippi physicians will have the continuous benefit of the best talent the country affords, to bring to them the latest information on the diagnosis and treatment of prevalent diseases, obstetrics, surgery, and other subjects. With two or more lecturers engaged in the work continuously, it is sincerely hoped that no physician in the state will overlook this opportunity for self-improvement at such a remarkably small cost to him in time and money. In the Committee's judgment, this is one of the best possible ways to make better doctors of ourselves and to render more valuable service to our people, thereby lessening the activities of the cultists who fatten and thrive on the ignorance and credulity of the people.

Mississippi State Medical Association,
W. L. Little, President.
Joe E. Green, President-Elect.
W. H. Anderson, Editor *Miss. Doctor.*
Committee On Postgraduate Medical Education:——
Felix J. Underwood, Member.

The times in which we are now living, are, indeed restless and uncertain. This is made manifest on every hand—especially is this true in regard to matters medical. The changing economics of the time seems to be reflected in the world of medicine more than in any other field. So much is being said and written about the high cost of medical care that the public seems to have reached the conclusion that it is being overcharged for this service. This, of course, is not true. No thought seems to be given to the fact that the kind of medical attention demanded today can not be given at the same cost that was formerly required. If Doctor Morris Fishbein's address on "Medicine in the Changing Social Order" could be read by every body I think that a better understanding of this subject would prevail. The public expects and demands more expensive care than formerly and yet expects it at the same old figure. Again there are so many people that can not pay for any of the necessities of life—of course, these can not pay for medical care at any price. The question naturally arises, what is to be done about it? I doubt if any one can answer this question certainly. But if those who have an income would budget for medical bills as they do for food, clothing, fuel, and etc., no serious trouble would arise when they are confronted with sickness expense. It seems to be up to the doctors to educate and train their clientele along this line. But the great multitude of people who can not pay any part of their sick expense, must be cared for in some way—they can not be left to suffer and die. The thinning ranks of the medical profession can no longer give them adequate and free care. Hence it is certain that these must look to a paternal government for attention when sick. Much is being done and has been done in preventive medicine to lighten this load and still more must be done in the future. But when all is done that is possible along these lines, still there will be sickness demanding attention. In a recent personal letter from Dr. Fishbein I read these words:—"It should be apparent that there are going to be gradual changes in the way of supplying medical service to great numbers of people. I believe that in the United States these changes will take place slowly, and that the private practice of medicine will remain for many years to come the chief system in this country." The consummation of this prophecy is, of course, devoutly to be wished for. But in the meantime why should the change in the system of caring for the underpaid and indigent be slow or gradual? These millions are with us—they are human and subject to all the ills to which flesh is heir. They need and should have medical care. This will cost money—much money. This money must be raised by taxation—there is no other way to raise it. Those who have required millions, even billions, by the sweat of faces other than their own, should be required to pay it. Stop the "loop-holes" through which taxes are being evaded by the over-rich and it can be done. If this be communism, let the most be made of it. But I am no communist. I simply ask for a square deal for all. The biblical edict that man should eat bread by the sweat of his face holds good still and always will. This means that all who eat should labor—it also means that all who labor should eat and this implies that they should receive a wage sufficient to pay medical bills. Many who have millions have never labored. It is equally true that many who have labored do not have the means of living. Of course it is true, also, that many who have nothing refuse to work. These shrould be compelled to work by and for the government, but not for those who are willing to defraud them of their honest pay. It may require that a paternal government be founded to bring this about. Even so, let it be. Utopian you say. Perhaps so. It, at least, is modern medicine.

G. S. B.

AMERICAN PUBLIC HEALTH ASSOCIATION

"Everyone in professional public health owes himself at least one interval in the year when he closes his desk, leaves his books to gather dust, and takes himself off to the place where everything of importance in public health will be discussed and where everybody of importance in the public health world will be on hand to take part in the discussions," reads an announcement from the American Public Health Association.

"That place is the Annual Meeting of the American Public Health Association and this year the point in time and the spot in space which will witness the assembly of the nation's health authorities are October 5-8, and New York City.

"The way programs and speakers are selected for the hundred-odd scientific meetings held in the four days assures only the best from the best. For a brief period, the earnest seeker after public health information needs only to keep his eyes and ears open to sense in their proper perspective what is being done and thought in the whole movement."

The opening General Session with Dr. Parran, Mayor LaGuardia, Governor Lehman and Dr. Farrand on the platform promises to be an especially colorful affair, as does the Annual Banquet with Dr. McCormack, President-

Elect, the after-dinner speaker.

There will be special sessions on Mental Hygiene, the Hygiene Housing and on Public Health advancing.

Among the subjects chosen for joint sessions are Nutritional Problems, with the Child Hygiene and Food and Nutrition Sections; Water-Borne Diseases, with the Public Health Engineering and Epidemiology Sections; the Crippled Child, with the Child Hygiene and Public Health Nursing Sections and Syphilis in Industry, with the Industrial Hygiene and Public Health Nursing Sections.

There will be an intensive three-day Institute on Public Health Education before the Annual Meeting begins, sponsored by the Health Education Section and under the direction of Professor Ira V. Hiscock of Yale University.

The Scientific Trips Committee with all of New York's multitudinous official and non-official health agencies to choose from, is preparing a program of inspection trips that alone would merit attendance at the convention.

The American Association of School Physicians, the National Organization for Public Health Nursing, the Federation of Sewage Works Operators, and several other allied national groups will join with the American Public Health Association in a series of scientific sessions.

All inquiries should be addressed to the American Public Health Association, 50 West 50th Street, New York City.

MEETING DATE CHANGED

Dr. T. M. Dye, Secty,
State Med. Ass'n,
Clarksdale, Miss.

Dear Doctor:

A meeting was called of the executive committee of the Council by order of the president, Dr. W. L. Little, Tylertown, June 8, 1937, to consider the advisability of the change in date of the 1938 meeting of the Mississippi State Medical Association since the adoption of the last Tuesday in April, 1938, as the date is in conflict with the 1938 meeting of the Mississippi Educational Association in Jackson, Miss.

It was the opinion of the entire committee that to conserve the best interest of the Association and to make it possible for the city of Jackson to entertain us, that we change the dates of the 1938 meeting to April 19-20-21, 1938, and it was so ordered by the president, and confirmed by the executive committee of the council, unamimously.

Signed:

W. L. Little, President Mississippi State Medical Association,
W. H. Frizell, Sec'y, Council Mississippi State Medical Association.

Those present and voting "aye": Chairman, D. J. Williams, Member, J. G. Gardner, Secretary, W. H. Frizell. President W. L. Little presiding.

Tylertown, Miss., June 8, 1937.

OUR PRESENT KNOWLEDGE OF ACUTE ANTERIOR POLIOMYELITIS: A REVIEW

Diagnosis

Recent studies have indicated that the only truly effective treatment for poliomyelitis is convalescent serum. In order to be effective, however, it positively must be given in the preparalytic stage of the disease. This means that it must be given during the first five days. The early detection of poliomyelitis is absolutely necessary in order to accomplish anything with convalescent serum. In sporadic cases or in the early days of an epidemic, the diagnosis of the disease is by no means simple. At this season of the year, however, every physician should be on the alert to detect symptoms which are usually typical in the first few days of an impending poliomyelitis. The symptomatology has been described in many excellent articles in text-books, but in no place has it been outlined better than in a communication of Aycock and Luther who reported their observations in 106 cases in the Massachusetts Epidemic in 1927.

They summarized the symptoms as follows:

"The child seems prostrated a greater degree than the temperature, which is usually under 102°F., would indicate. The face is flushed, the expression is anxious, and there is frequently pallor about the nose and mouth. The throat is mildly infected, but not enough in itself to account for the child's condition. The pulse is usually rapid, out of proportion to the temperature. The rest of the physical examination is negative, except for that portion which deals with the nervous system.

There is frequently a rather coarse tremor when the child moves, which may be very striking. There is a distinct rigidity of the neck; however, this is not as marked as that usually seen in meningitis. The patient tilts the head on the neck but does not bend the neck on the shoulders. As a result, the head can be brought about half way forward, when resistance is encountered, and the child complains of pain. More constant and more characteristic than the stiffness of the spine. This is best brought out by having the patient sit up in bed and try to bend the head down onto the knees. The average child ill with other infections is very flexible and has no difficulty in doing this. If these patients bend forward at all, it is from the hips, with the spine held rigidly. Many of them cannot assume a comfortable sitting position without propping themselves up on their arms. Anterior flexion of the spine often causes a drawing pain in the lumbar region. Kernig's sign is not usually marked at this state, but the deep reflexes are frequently hyperactive rather than diminished, as they are later. A cerebral tache is almost always present, not frequently becoming a purplish, irregular blotchy line a half inch or more in width. It is the presence of these signs and symptoms which justifies a probable diagnosis of anterior poliomyelitis and calls for a final step in the diagnosis.

The next step is the examination of the spinal fluid. The fluid is usually under moderately increased pressure (from 150 to 200 mm. of water). Microscopically, the fluid appears to be clear, but when viewed by transmitted light, it presents a faint haziness which has been described by Zingher as a "ground glass" appearance. There is an increase in cells, usually between 50 and 250, but occasionally as high as 700 to 800, or as low as 20. These cells may early be largely polymorphonuclear, but later are lymphocytes. There is an increase in globulin."

The above from the New Orleans Medical and Surgical Journal from the pen of Dr. Robert A. Strong is timely at this time.—Ed.

BOOK REVIEWS

Personal Hygiene, by Clair Elsmere Turner, M. A., Dr. P. H.

Like *Personal and Community Health,* this book of Dr. Turner's offers an excellent text for students in colleges, universities and for the general practitioner and nurse. The author reviews in concise diction the hygiene of nutrition, digestion, oral care, respiration, circulation and the normal functions of the organs of the body. He gives clear and practicable discussions of posture, foot hygiene, and mental health. The chapters on reproduction and heredity bridge the gap from the technical to the simple. "The old-fashioned idea that medical services exist only for those who are physically disabled is gradually being replaced by the more modern point of view that such services should also be used to prevent disease," is the urge of Dr. Turner in maintaining health as a personal responsibility. He proceeds to give simply a number of signs that might indicate to the individual that his physical welfare has departed from the normal. Communicable diseases and immunity is the concluding chapter followed by an excellent appendix of these diseases.

Personal Hygiene is a splendid book to recommend to the laity, to the medical student or teacher of public health. It would be an excellent study for a federated or community club program. Price, $2.25.

Published by C. V. Mosby Company, St Louis.

Dr. Don C. Sutton, of the Northwestern University School of Medicine, Chicago, has prepared a book on physical diagnosis which strikes at the major difficulties involved in modern diagnosis today. He begins by stating that "students, generally, fail to realize the significance attached by the experienced physician to the clinical history which he obtains and to the physical findings which he elicits." Most laboratory and technical procedures are secondary to a careful history and an accurate description of physical findings". Dr. Sutton's *Physical Diagnosis* takes up the history, general examination, the lungs, the heart, the abdomen and nerves in detailed, clearly illustrated procedure. But he makes a plea for a better understanding of this branch of medicine. He emphasizes that the student or physician can not acquire the art of physical diagnosis merely by reading or instruction; he must gain it by actual practice. He points to the fact that a study of the normal is too generally neglected for a study of disease conditions, and defines *physical diagnosis* as "the art of the interpretation of the physical signs presented by the body in health and in disease. An incorrect diagnosis is due to failure to make a complete and faithful study of the case rather than to misinterpretation of the information gathered by examination. Use all that science may offer in the diagnosis and treatment of disease, but leaven the application to the individual patient with sympathy and kindness."

A most valuable section of this book is twenty-five pages given to the methods of diagnosis employed by eminent men in the field of medicine from the time of Hippocrates. Galen, Vesalius, Harvey, Sydenham, Boerhaave, Morgagni, Laennec, Auenbrugger, Corvisart, Mackenzie and Sir Thomas Lewis—all have contributed too much to medicine not be to read and re-read. They and their disciples and translators comprise our most treasured medical classics. The chapter is compiled by Dean Irving S. Cutter.

Physical Diagnosis in many ways transcends the merely technical; it accomplishes what its author hoped to achieve—to help the physician or student to accumulate a basis of facts so that with the aid of his senses, he may form an opinion of diagnosis and management, and pursue any clinical problem presented. Price, $5.00.

Published by C. V. Mosby Co., St. Louis.

Tuberculosis Abstracts

Osler's *Principles and Practice of Medicine*: "A last word on the subject of tuberculosis to the general practitioner: The leadership of the battle against the scourge is in your hands. Much has been done, much remains to do. By early diagnosis and prompt, systematic treatment of individual cases, by the prompt recognition of contact cases, by striving in every possible way to improve the social condition of the poor, by joining actively in the work of the local and national anti-tuberculosis societies you can help in the most important and the most hopeful campaign ever undertaken by the profession."

THE EARLY DIAGNOSIS CAMPAIGN

For ten consecutive years the tuberculosis associations of the United States have been conducting in the month of April an annual publicity campaign for the early diagnosis of tuberculosis. Dr. Edward L. Trudeau, the pioneer of the fight against tuberculosis in the United States, went on record at the first meeting of the National Tuberculosis Association on May 18, 1905, as follows:

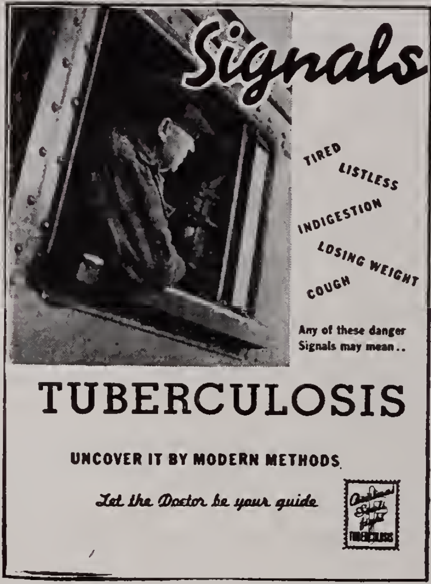
"The first and greatest need in the prevention of tuberculosis is education; education of the people, and through them education of the state. It is evident that if every man and woman in the United States were familiar with the main facts relating to the manner in which tuberculosis is communicated and the simple measures necessary for their protection, not only might we reasonably expect as a direct result of this knowledge a great diminution in the death rate of the disease, but the people would soon demand and easily obtain effective legislation for its prevention and control.

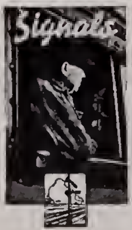
"When a state has once become well educated, and not before, will the other requisites necessary to the control of the disease be forthcoming."

This fundamental principle is as valid today as it was 32 years ago. The tuberculosis associations of the country appreciate the cooperation and leadership which the medical profession has always offered. Again the farsighted physician is urged to lend his help to this year's campaign.

The theme of the 1937 E. D. C. (Early Diagnosis Campaign) is "Uncover Tuberculosis with Modern Methods." For the campaign three leaflets have been produced.

The first leaflet called "Signals" deals with early symptoms of tuberculosis and the importance of consulting the doctor on their first appearance. It is a discouraging fact that in the last ten years no appreciable increase has occurred in the proportion of "early cases" admitted to sanatoria. This is in spite of years of earnest educational efforts urging people to obtain medical advice on the appearance of the earliest symptoms which are enumerated in the pamphlet. One of the explanations offered is that some of the early symptoms are not sufficiently severe to prompt people to action. In fact they are often so subtle as to be overlooked even by the doctor. Surveys of large numbers of sanatorium patients have shown that fatigue is often the first and only warning signal. Another danger sign which is just as often overlooked or disregarded by the patient is a group of symptoms which we commonly call indigestion. A cough that hangs on, loss of weight, blood spitting, pleuritic pain, are most likely to cause a man or woman to visit the family doctor. The physician's greatest part in the fight against tuberculosis is his willingness to investigate these danger signs at once, bearing in mind that often it is impossible to exclude tuberculosis without an X-ray of the chest. The files of tuberculosis sanatoria are filled with case histories showing that cases were diagnosed far too late. Not only is syphilis, as Osler says, a great imitator but tuberculosis also imitates the symptoms of many other diseases.


Signals
TIRED
LISTLESS
INDIGESTION
LOSING WEIGHT
COUGH
Any of these danger Signals may mean..
TUBERCULOSIS
UNCOVER IT BY MODERN METHODS
Let the Doctor be your guide
Christmas Seals fight TUBERCULOSIS



The somewhat out-dated survey by Dr. Linsly Williams and Miss Alice Hill has furnished data relating to the fate of about 1,500 tuberculosis sanatorium patients. A regretably large number of these cases were first diagnosed as bronchitis, pleurisy, colds, "congestion" of the lung and a great variety of other diseases including malaria, cancer, anemia, pathological conditions of the liver, kidney, bladder and even rheumatism.

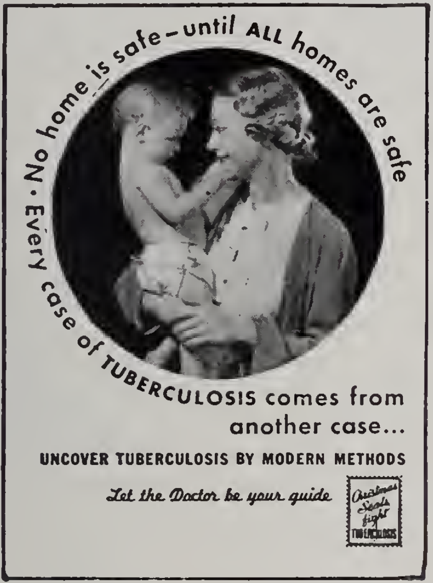
A FINE BODY MAY CONCEAL
TUBERCULOSIS
But modern methods uncover it before it does harm
Let the Doctor be your guide
Christmas Seals fight TUBERCULOSIS

Only the four classic symptoms of early tuberculosis—fatigue, loss of weight, cough and indigestion, are mentioned in the pamphlet. Care is taken to make clear that none of these symptoms is pathognomonic but that any one of them should be considered as a danger signal to be investigated by the physician, emphasizing the advice that he be consulted *early.*

The second booklet "It Can Happen" deals with the tuberculin test and is addressed to high school groups.

The third booklet "In Every Home" deals with the age-old story of contacts.

It is abundantly recognized that the reason for failure to find early cases cannot result entirely from the apathy of patients nor from lack of vigilance on the part of the doctor. Sanatorium men recognize the fact that more and more cases appear where the transition from the "early" or "silent" stage of tuberculosis to the moderately advanced or far advanced is relatively swift and only by the barest chance is the minimal case detected if the fluoroscope or the X-ray is not used as a standard aid in diagnostic practice.


No home is safe—until ALL homes are safe
No • Every case of TUBERCULOSIS comes from another case...
UNCOVER TUBERCULOSIS BY MODERN METHODS
Let the Doctor be your guide
Christmas Seals fight Tuberculosis

DR. COHN TO LSU FACULTY

Dr. Isidore Cohn, who recently succeeded Dr. Rudolph Matas as chief surgeon of Touro Infirmary upon the latter's retirement, has been appointed to the post of Professor of Surgery and Associate Director of the Department of Surgery in the newly organized graduate school of the LSU School of Medicine. This announcement was issued Saturday jointly by Dr. James Monroe Smith, president of the University and Dr. James T. Nix, director of the graduate school and of its department of surgery.

A native of West Baton Rouge parish, Dr. Cohn is well known throughout the Felicianas, in Shreveport where he served one term of his internship, and in New Orleans where he completed his interneship, and under the leadership of Dr. Matas rose to one of the highest positions a surgeon can occupy here. But he is known in medical circles throughout the United States, particularly for his advance work in bone surgery, in which field he is a recognized authority, being a member of the fracture committee of the American College of Surgeons, and chairman of the fracture committee for the state of Louisiana. He is likewise senior visiting surgeon at Charity hospital, and consultant at the Flint-Goodridge Hospital of Dillard University.

Dr. Cohn was born at Brusle Landing in West Baton Rouge parish, on April 9, 1885. After completing his early schooling in private schools at Baton Rouge, he entered LSU to whose faculty he has just been appointed, in 1899, graduating as Bachelor of Science in 1903, at the age of 18.

The following year he entered the School of Medicine at Tulane where he received his M.D. degree in 1907. After a year's internship at the Shreveport Charity hospital, Dr. Cohn returned to New Orleans to serve another internship for the next two years at Touro Infirmary. During this period he was appointed assistant demonstrator in the laboratory of minor surgery by Dr. Matas. In 1911 he was appointed clinical assistant, then junior surgeon in 1914, then senior associate in 1918, and, finally, in 1935, he was honored by being elected to the position of chief surgeon at Touro Infirmary, succeeding Dr. Matas, who retired at that time.

Dr. Cohn has been a member of the Department of Surgery of Tulane University's School of Medicine for many years. In 1933 he was elected professor of surgery and head of the department in the Graduate School of Medicine of Tulane University, a position which he held until the close of the session 1937 when he resigned to accept a position on the staff of the newly organized Graduate School of Medicine of Louisiana State University.

"Because of his long experience in the teaching field," the formal LSU announcement of his appointment, "and because of his marked ability as an organizer, Louisiana State University, feels that Dr. Cohn's participation in the organization and development of its graduate school of medicine will be of immeasurable benefit to the school."

From 1909 to the present time Dr. Cohn has contributed more than one hundred papers on various surgical subjects. He has been guest speaker at medical associations throughout the United States on numerous occasions.

Development of the graduate school of medicine at LSU is a response to the special three-year course of training required by national specialty boards before examinations for specialty certificates from these boards can be taken and passed.

"Few schools in the United States offer such training," Dr. Nix explained, "and young physicians all over the country will be seeking institutions where such training can be had.

"For a number of years the American Medical Association and the Association of American Medical Schools have been stressing the fact that more opportunities for graduate medical education should be available.

"Aside from the need of graduate medical education for the training of the specialist there is the need for it in connection with the practicing physicians who wish to keep abreast of the rapid strides made in medicine (and which are still being made) during the past few years."

BOOK REVIEWS

The Care and Feeding of Babies In Warm Climates—By Charles James Bloom, M.D.

This is a very practical and useful little book written by one of the leading pediatrians of the south. Dr. Bloom writes in a very clear and interesting manner so that anyone may easily understand it. The first chapter is written especially for the expectant mothers and gives much valuable information and advice in pre-natal care. The entire book is written in a very clear and orderly manner discussing separately the average baby, the baby's nurse, the care and toilet of the baby, the baby's food, the baby's cook book, the baby's clothes, the baby's nursery, the traveling baby, the baby's routine habits and training, the sick baby, first aid, practical medical procedures, and other helpful information such as a confinement chart and others. This will be a valuable book for specialist, general practitioner and layman.

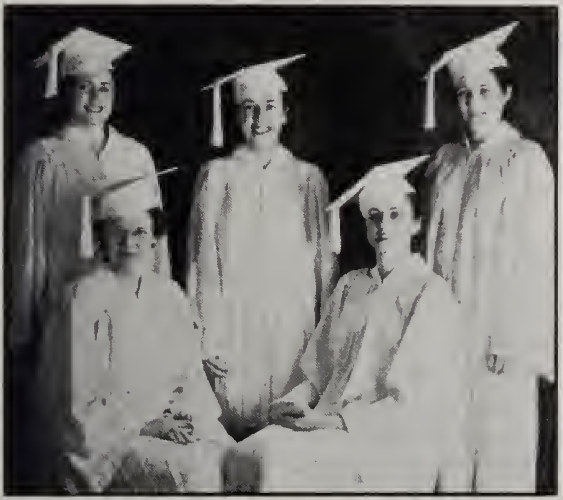
Published by Pelican Publishing Co., New Orleans, La.

The Sixth Edition of Local Anesthesia by Arthur E. Hertzler, A.M., M.D., Ph.D., LL.D., F.A.C.S., Professor of Surgery in the University of Kansas et al., is just off the press. It is published by the C. V. Mosby Company, St. Louis. The price is five dollars. This book differs from others on local anesthesia in that it recommends smaller amounts of the solution, this made possible by accurate technic. It favors infiltrative anesthesia instead of regional block because constriction of vessels is an aid to anatomic operation. The chapter on spinal anesthesia has been rewritten and one on intravenous has been added. In this most valuable book, the drugs used for local anesthesia, their preparation, and action on the tissues are fully discussed. The use of epinephrine as an aid in local anesthesia and the combination of local anesthesia with narcortics is given due consideration. The technic of administration is given in detail, not only the general principles governing it, but the definite procedure for each operation both minor and major. Indications for local anesthesia in major operations in the different anatomical fields are carefully outline, full consideration being given to abdominal. The chapter on spinal anesthesia has been revised and full consideration given to the essentials in this field. A concise discourse is given to intravenous anesthesia, both drug and patient being taken into consideration.

The remarkable thing about this book is its conciseness combined with comprehensiveness. The book is composed of 277 pages. It seems that no book yet published could be more valuable to the general surgeon, and especially those of the small town.

The relation of whiskey to deaths caused by automobile wrecks and to venereal diseases should be thoroughly studied by the medical profession. The consumption of whiskey and the machine age in which we are living are not at all compatible.

BOONEVILLE NURSES GRADUATE



The above is the recent graduating class of the Northeast Mississippi Hospital at Booneville. From left to right, standing, Misses Lorene Hodges, Maggie Mae Green, Effie Ray; sitting, Misses Olita Crump and Opal McCord.

We extend our cordial good wishes to these splendid young ladies. What the small hospital lacks in some ways in training nurses it makes up in others. It teaches them to work and give special attention to patients. It is well for the graduate of the small hospital to take post-graduate work in a large institution, and it is just as important for the graduate of the large to take a course in the small.

The Central Medical Society is planning two more post-graduate courses. The first Tuesday in September the University of Tennessee will put on a program for one full day and evening. At lunch time each essayist will hold a round table discussion where any one may ask questions. On the second Tuesday in December a similar program will be executed by the Tulane Medical School. We congratulate the Central Medical Society.

The meeting of the Northeast Mississippi 13 County Medical Society at Houston on June 15 was unusually good we are told. It is always good to go to Houston. It is a splendid medical center. The air is charged with a fine fraternal spirit.

We are grateful to H. A. Phillips Artificial Company for taking space in our journal. He is located at the capitol city. The only industry of its kind in Mississippi. Mississippians would do well to give him due consideration.

We are grateful to The Mississippi Power Company for taking advertising space with us.

Thanks graciously to the Magnolia Printing Company of Jackson for taking space with us. May you be greatly benefited.

The U. S. Standard Products Company has joined hands with us for the year. We thank this company and wish it success.

We thank Dr. T. K. Lewis, of Birmingham, for his fraternal good wishes by placing his card with us.

The doctors of Mississippi could well afford to employ 500 trained nurses in their offices.

Nothing is impossible to the determined spirit, to the person who has one aim, one ambition, and who cannot be diverted or turned back from his purpose, however impossible its accomplishment may seem.—From *The Tradesman.*

SUMMER DIARRHEA IN BABIES

Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 8 level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. Three to six teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. Please send for samples to Mead Johnson & Company, Evansville, Indiana.

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

Wounds of the Heart*

W. W. CRAWFORD, M.D.
Hattiesburg, Miss.

Despite the fact that medical literature contains numerous references to wounds of the heart, beginning at a date as remote as the ninth century B. C., it was not until 1896 that the first successful suture of a heart wound was performed by Rehn on the human subject. Prior to this operation cardiac surgery was regarded with so much disfavor by the leading surgeons of the world that Billroth in 1885 declared that "the surgeon who should attempt to suture a wound of the heart would lose the respect of his colleagues." Steven Paget, in 1896, said that "surgery of the heart has probably reached the limits set by nature to all surgery; no new method and no new discovery can overcome the natural difficulties that attend a wound of the heart." "It is true that heart suture has been vaguely proposed as a possible procedure," said he, "and has been done on animals, but I can not find that it has ever been attempted in practice." In the face of the above statement a new era in cardiac surgery was born that same year, and the number of successful cases since that date attest the consistency of surgical endeavor in this field. If one wishes to qualify for brain surgery he spends years as an understudy to some master surgeon, but in this, perhaps the most dramatic specialty, opportunity is not afforded for excellence. It is often the novice working in a busy emergency service who is confronted with his chance to save a life while his chief like the late DaCosta laments the fact that he must content himself with theoretical contemplation. A perusal of the literature of the past twenty-five years supplies convincing data that the timidity of the past was unwarranted. It has become increasingly apparent that the wounded heart tolerates the necessary manipulation incident to suture with far greater faculty than was formerly believed.

Probably a majority of these cases die before reaching the hospital. If they live the few hours necessary for transportation and preparation for operation there are several factors of safety that may be operating to their advantage—factors that may be translated into success if utilized expeditiously. The wound in the heart may not be of perforating type, there may be a moderate degree of tamponade that is not of sufficient proportion to raise the level of venous pressure to a dangerous point, but restrains bleeding, or, as in our recent case, the cardiac and pericardial wound may be so extensive that the patient is greatly exsanguinated and further bleeding limited because of feeble heart action.

In support of the contention that a large majority of cases of heart wounds die before an opportunity is afforded for surgery, a recent survey of the State of Mississippi reveals the fact that while a number of deaths have been caused by heart wounds and several cases of wounds of the pericardium have been successfully operated upon, only two cases have been operated upon with recovery where the chambers of the heart have been penetrated in the memory of the present generations of surgeons. What is the cause of early death in this group? Is it hemorrhage? We can scarcely believe it. Many of us have successfully treated patients who have lost excessive quantities of blood from various accidents.

It has been suggested that heart tamponade produced by retention of blood in pericardial sac is the outstanding cause of rapid death. This assumption is probably true, but intrapericardial pressure alone does not produce a fatal issue for we know that patients with an exaggerated form of pyopericardium from other causes may and do live for weeks. In the latter group the accumulation of fluid in pericardium is gradual and venous pressure adjusts to it. In the rapidly filled pericardium no such adjustment is made. It has been shown by Conheim that marked and rapid increase in intrapericardial pressure produces a fall in arterial pressure and an elevation of venous pressure—and that when the pressure in both sides of the heart becomes equal it no longer functions. It is, of course, evident that in the exsanguinated patient only a limited amount of intrapericardial pressure in the form of a blood clot is necessary to produce cardiac inertia.

---

*Read before the Section on Surgery at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 11, 1937.

In many cases the laceration of the pericardium is small and the rapid discharge of blood from the heart is out of proportion to pericardial outlet—hence the arrest of heart action. The literature recites several instances in which enlargement of rent in pericardium by the surgeon afforded instant relief to the embarrassed heart.

The location of a heart wound has much to do with the prognosis. Wounds of auricles have a higher fatality than that of ventricles. That of the left ventricle less than the right. It is obvious that the difference in death rate resulting from perforation of the different chambers is determined by variation in density of the musculature. About eight per cent of heart wounds involve auricles. The ventricles are about equally involved. The surprising degree of tolerance of the heart to persistent trauma is apparent from the fact that there are a number of authentic cases in which bullets and other foreign bodies have remained imbedded in the walls of the heart over a long period of years without functional disturbance.

Operation

Approach to the heart has been the subject of a wide variety of technique. The location and size of trap door affording access to it may be influenced by location and type of injury. If the injury in the chest wall has been produced by a knife, as is often true, the wound may be parallel to the ribs or intercostal space, in which even it may constitute either the upper or lower border of the trap door. If no such wound has been inflicted, the incision of choice would seem to include the costal cartilages of fourth and fifth ribs one inch from sternum and extended along the fifth interspace, a distance of three or four inches, incision of fifth and fourth ribs and turn flap up. In patients with wide interspaces it is practical to make a trap door that includes only the fifth rib and fourth and fifth interspaces. By the use of retractors we found this space adequate.

If the rent in the pericardium is small the sac may be found distended with blood. If so, the opening is enlarged and blood clot sponged away from heart. If the patient's condition is critical, it is not necessary to do more at this juncture than remove enough blood to bring the heart into view. If bleeding is active, the point of injury is readily recognized and may be compressed between the fingers until a suture is placed either at the upper or lower margin of wound, or, if more convenient suture may be placed through apex of heart. In either event suture can be used to steady the heart while additional ones are inserted to close lesion. Should there be no actual bleeding, due either to small perforation, location of wound on posterior portion of heart, or, if there is cardiac asthenia, the lesion may not be readily found. After the insertion of the first suture the completion of the repair is quite simple.

The choice of suture material and kind of stitch used is a matter of personal preference. Interrupted mattress suture of chromic catgut reinforced by continuous suture of silk or linen seem an ideal combination. By this method a minimum amount of non-absorbable material is used with a maximum of security to wound.

Drainage of the pericardium has been the subject of much discussion. In view of the fact that infection of the pericardium or pleura or both is responsible for 45 per cent of the deaths according to Guibal, it would seem expedient to anticipate this complication at least to the extent that drainage is provided. Statistical data indicates that pericardial adhesions develop in those cases without drainage with the same frequency as in those in which drainage is provided.

Position of patient in bed following operation should be controlled by his comfort. Fowler position added greatly to both cardiac and respiratory balance in our case.

Complications

Most frequently noted are infections of pericardium and pleura and pneumonia.

Mortality

It must be admitted that the total number of reported cases today is too small to warrant sweeping deductions in regard to mortality. The type of wound, resistance of the patient, conditions under which operation is performed, technique and postoperative treatment are factors that must be taken into consideration before mortality percentage will assume significance.

Case Report:

L. D., white, male, age 25, was admitted to the writer's service in South Mississippi Infirmary at 7:30 p. m., January 13, 1934, suffering from a stab wound of the chest. Two hours prior to admission, patient was stabbed in chest with a pocket knife. He fell to the ground and was stabbed a second time by his assailant. Despite excessive hemorrhage he walked about 100 feet to Dr. McLeod's office where he collapsed. The doctor brought him to the hospital, a distance of 40 miles. When placed on operating table pulse was imperceptible and immediate death seemed imminent. In a few minutes condition improved and operation was decided upon. We noted a wound, four inches in length, extending from sternum along left interspace. Blood was flowing from sternal end of wound. Under ether anesthesia examination revealed that fifth costal cartilage had been severed at a distance of one inch from sternum. Incision was extended along wound in fifth interspace four inches. Rib was cut at this point and incision extended through fourth interspace—trap door was turned up and size of opening enlarged by use of retractors. This afforded adequate space for inspection and suture. There was an extensive rent in pericardium and after removal of blood clot the heart was observed beating feebly. There was little active bleeding due to excessive hemorrhage immediately following accident and the consequent lowering of blood pressure. An incision one and one-half inches in length extended into the chamber of the left ventricle. A suture of number 0 double chromic catgut was placed in one end of wound; with this as a support, wound was closed with three interrupted mattress sutures of same material. A continuous Pagenstecher linen suture was then placed for added security. Wound was closed except for small rubber tube drain extending about half inch into pericardial sac.

Patient was placed on bed in Fowler position. This position was maintained during convalescence because of added cardiac and respiratory comfort.

Unable to record blood pressure during operation, twenty-four hours later systolic pressure in left arm 65-D-0, right arm S-80-D.

Patient had a stormy convalescence that included pneumonia, pleurisy with effusion and pyopericarditis in which pneumococcus predominated. Patient had a negative Wasserman, but all his complications persisted in active form until a course of neosalvarsan was begun. The response to this plan of treatment was so rapid that we felt warranted in assuming luetic background.

Patient was discharged March 17th, 65 days after admission. Condition was quite satisfactory, but shadow in left chest was enlarged. Examination of patient on October 16th following showed a perfectly functioning heart, normal in size, blood pressure S-118, D-65.

Patient is doing heavy labor with a spade at this time and does not experience any cardiac embarassment.

Dr. E. C. Parker, who is scheduled to open the discussion of this paper, has had a successful case of heart wound and will report same in his discussion.

Dr. Elkin, of Atlanta, is also present and I trust will participate in the discussion. He has, so far as I know, reported the largest number of cases of anyone in the country, thirteen in all.

I wish to present the patient at this time: His appearance and physical well-being supports our contention that he is normal.

DISCUSSIONS

DR. E. C. PARKER (Gulfport) : Gentlemen, we all should compliment Dr. Crawford on his work in this case. It is not work for a very timid man to undertake, it is something you must do and you must act quickly. I guess I have been more fortunate than the average man to have had two of my own, and one with another doctor. I was fortunate enough to be with Dr. L. L. Hill of Montgomery, Alabama, on the first successful heart operation in this country. That patient many of you older men have seen; Dr. Hill exhibited him to our medical association when we met in Columbus many years ago. Some six years ago I happened to be in the hospital at Gulfport when the colored man whom Dr. Crawford referred to was brought in. You could feel no arterial pulse; there were large beads of perspiration over his body; he had that ashy color that comes just before death. There happened to be two other doctors there at the time. I made a diagnosis of stab wound of the heart, and with a very hasty preparation we went in and found both ventricles and the septum cut. I put one suture in the septum and we had some infection thought possibly due to my rapid preparation and a slip in technique somewhere. I am glad to know that I am not the only one that has had an infection. That man to-day is a longshoreman, a common loborer on the pier at Gulfport. I have not been able to find record of another case where the septum has been cut that had recovered. I paid the Research Department of the American Medical Association fifty dollars to see if they could find one and they could not. Since then, two years ago, I had another case that was cut into the auricle. I thought I was getting along pretty good. I have seen two cases that had recovered, but this one proved to me I was not quite so smart. He died in less than 12 hours.

This work must be done quickly. Go in and stop the hemorrhage. Now the heart is a tough muscle; you can handle it. Pick it up in your hand and take your suture-it will go on beating and you can keep it in your hand for half an hour. I did not go as far as Dr. Crawford in putting in the extra row of sutures, especially in the ventricle. It takes very little to close that in my estimation. I have had no trouble, but I have had trouble in trying to get the drain to stay in the pericardium. I am not so fortunate because four or five beats of the heart and my drain is out. I guess I do not know how to put it in, but these cases will test a man's metal at any time, and Dr. Crawford deserves a great deal of credit for the work he has done.

DR. D. C. ELKIN, (Atlanta, Ga.) : I think that cases like this should always be put on record because the added knowledge helps finish the chapter. Dr. Crawford's case with an incision of one and one-half inches in the muscle with recovery was certainly one of the few with such an extensive wound to have recovered, as was Dr. Parker's wound in the septum. I believe that this problem of cardiac wounds is largely determinate upon such reports as this, and the education of all of us and the knowledge that they do occur and that they can be cured.

Our own series, which is now 21, has been largely due to the fact that our house staff has been stimulated by seeing cases recover, to the knowledge that they occur with considerable frequency and are able, therefore, to diagnose. Of the 21 cases which we have had six of them have been done by members of my own house staff, and 15 by me and it is only fair to say that the percentage of mortality in the cases done by the house staff is far less than those done by me. Of the 15 cases I have done 9 that recovered, and of the six they have done 4 have recovered.

I would have to disagree—but have no really good reason since there is nothing quite so successful as success—that drainage would prevent infection or would help infection. I rather feel that the placing of the drain in pericardial wounds is far more apt to cause infection, and I think that drainage should usually be allowed to take place through the pericardial wound into the pleural cavity. The remarkable thing, and the question which is often asked is why do they not have pericardial adhesions and the patient just shown and the one Dr. Parker mentioned bears out our own conclusions that pericardial adhesions which do form do not embarrass the heart, due to the fact that they are not constricting lesions, and in spite of trauma it takes constricting lesions to give symptoms of cardiac embarrassment. I have enjoyed this paper and the discussion immensely.

DR. P. W. ROWLAND, (Oxford) : Since I am not a surgeon I do not arise to discuss Dr. Crawford's paper in that sense. However, I am a pharmacologist, and in doing experimental work on dogs, I have frequently observed that stab wounds of the heart, of considerable degree, can be repaired readily, and after quite a bit of hemorrhage, replacing the blood with intravenous injections of glucose. The dog will recover.

So, if there are any doubting Thomases among you, don't doubt any longer. I congratulate Dr. Crawford on his good work in this case.

DR. W. H. SCUDDER, (Mayersville) : I would like for Dr. Crawford to state, inasmuch as he did not entirely or completely close the wound in the pericardium, why he did not close the wound. Please explain that.

DR. JOE E. GREEN, (Laurel) : I would not attempt to discuss Dr. Crawford's paper from a surgical standpoint; but recently having been fortunate or unfortunate in having two heart cases in my practice, I feel that the physician should be alert in making early diagnosis because this is the only possibility of the patient living.

The first was a negro stabbed with a large knife in the left auricle, who died just after reaching the hospital. On post-mortem, it was found that he had a large wound in the left auricle and as I understand it, in this type of case, surgery is of no avail.

The second was a young man who had been stabbed just under the left nipple and over the right kidney. I was called to the hospital by my associate, Dr. R. T. McLaurin, for whose surgical ability I have profound respect. The patient had a very weak pulse, was pale, and the body covered with cold, clammy perspiration. While discussing the case as to whether he should or should not operate, and not more than five minutes having elapsed after I reached the hospital, I placed the stethescope over the heart for the second time and remarked, "Bob, this boy is dying." After listening to the heart sounds the second time, he replied, "H—no, he's not dying, he's already dead." Knowing that there were cases on record of heart wounds where the heart had been stopped because of mechanical pressure, I suggested that we open the chest as no harm could be done. The patient was then carried from the emergency room to the general operating room. Student nurses were hurriedly getting instruments ready, and while the doctor put on his gown and gloves, I cut the clothing from the chest and painted it with iodine; all of which must have required from five to eight minutes. The doctor immediately began opening a window over the heart, but there was no sign of life, and no hemorrhage from the small blood vessels until he entered the chest wall, when there was a loud whistling sound that could be heart for quite a distance. It was made by the air escaping from the chest wall. The escaping of the air sprayed blood probably four feet high over the operator and his assistant; and immediately, the patient gave a gasp and attempted to get off the table. Blood was spurting from all small blood vessels. While the nurses held the patient, I gave the anesthetic and the operator clamped bleeding vessels. The chest wall was open and the knife had penetrated the lung, and the pericardium and there was a large muscular wound, possibly an inch and a quarter long, in the left ventricle, but only a small opening into the chamber of the heart. The heart was sutured, requiring several stitches, and the operation completed in the recognized surgical manner. The patient, after being given glucose and saline solution, came out from under the anesthetic and said he was feeling fine. On the following morning, the patient was catherized and the urine was almost pure blood. Then we knew that the small stabe over the kidney had entered it; and of course, we realized that the patient would eventually die. However, he did remain conscious, comfortable, and perfectly rational from Saturday night at one o'clock until Thursday morning when he died.

Another peculiar part of this case was that in discussing how he got hurt, the patient said that they were all drinking, and he did not remember how he got to the hospital, but the first thing he did remember was when he woke up and Dr. Bob was operating on him.

I have given this case in detail, because it was the first time I have ever seen a dead man come to life. I hope that it will impress you as it did me; and when you have a patient dying from a heart wound, do not hesitate to operate quickly.

In conclusion, may I say that thirty years ago when I began the practice of medicine, Dr. Crawford did my surgery, and he was a great surgeon then and, of course, has grown better as the years have passed. However, please don't think that I am intimating that Doctor is getting old, because really, he is a rather young man. For as you know, we are just as old as our arteries.

Amebic Colitis (Amebiasis) With Case Reports*

R. B. CALDWELL, M.D.
Baldwyn, Miss.

Amebiasis is an infection of the large bowel (colon) with the Endameba histolytica as the primary cause and has long been called the tropical disease. It is still believed by many to be very rare in this climate and they do not believe that it is endemic in every section of the temperature zone. We have considered it too lightly and we are looking for acute symptoms for considerations in our amebic infections.

The Chicago epidemic in 1932 was a definite proof that amoebic infection was not a tropical disease alone when more than one thousand cases were reported with more than fifty deaths from acute stages and no records of later developments in the surviving cases. The many cases that were not reported then developed symptoms later and probably many deaths resulted. This epidemic has caused the physicians to begin to look for these cases. The Mayo Clinic has reported cases from every state in the union and several provinces in Canada. We also recall a statement made years ago by Osler that amebic infection was not and had never been a tropical disease alone, that the world was its field and that cases were to be found in every community of the globe and that some day it would be one of our greatest problems.

I do not think that too much can be said for the work of Colonel Craig in the Chicago epidemic and in the tracing of this epidemic to one carrier in a certain hotel. His work seems to be the latest published and I am sorry that more have not been published and hope that more will yet find their way into the press. Then maybe it will reawaken the profession and we will be able to wage a fight that will eliminate amebic infections as we have almost done typhoid fever, small-pox, and diphtheria. In my opinion if there is not something done in the next ten years, there will be more deaths in Mississippi from amebic infections than from typhoid fever and small-pox combined. In my work I have had more cases in the last three years than I had in the twenty preceding ones and have had more amebic infections in the last five years than I have had of typhoid fever.

We are dealing with a disease in which the getting of a definite history as to the onset of the first symptoms is hard to do. In only one case I have been able to get a definite statement as to the first attack, and this case I will give you later.

The infection is taken to the intestinal tract through food and drink, usually water, raw fruits and vegetables. The colon is the host to the ameba and is usually slow in developing symptoms. It does not have a marked reaction as do most infections.

The pathology in amebiasis is principally confined to the colon as ulceration and scar tissue. The scarring and contraction in the colon are mostly in the cecum and decending colon. The small intestine has been found to contain a few small ulcers and the complicating pathology is abscess of the liver and pelvic abscess, both of which are frequently encountered.

Diagnosis: I shall discuss it first, as to history, second, general examination, third, stools, fourth, proctoscopic, and fifth, x-ray.

History is, of course, varying in these cases from an acute, griping diarrhea to a slightly noticeable intestinal disturbance. However, attacks of diarrhea coming on at frequent intervals with mucus and blood-stained stools and tenesmus should always arouse suspicion of amebic colitis until otherwise proven. The milder types are those that complain of frequent soft stools daily, usually from three to eight or ten, mostly in the early morning and accompanied with some griping and straining and more blood and mucus in the last few stools than in the first. There is usually an uncomfortable feeling in the abdomen and not much tenderness or soreness to be found. The patient complains of weakness and of being unable to do much work and the shortness of breath is distressing in any exertion. They all have this one statement to make: "Doctor, I am weak and nervous and have been for some time and it is getting worse." Remissions may occur in these cases for weeks. Later, the same complaint returns. Spontaneous cures may take place, I do not know. Patients will tell you that they have tried all kinds of check-drops and diets with no relief. May I say here (as I will not mention check-drops in the treatment) that check medicines, diet, and medicine to change the intestinal flora are worthless.

---

*Read before the Section on Medicine at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 11, 1937.

In the general examination a careful examination of the lungs for tuberculosis should be made. Also look for pellagra. These two are the most common diseases that will produce conflicting symptoms. Carcinoma, which is not uncommon, should be considered, especially in older people. The bacillary type of colitis should be eliminated in all colon infections.

Stools: The absolute diagnosis depends on the stool examination and the finding of the ameba and the cysts. The most satisfactory specimen that I have been able to get is a specimen taken in the proctoscopic examination, carefully getting blood-stained mucus from the walls of the colon. This is easily removed with a small pair of dressing forceps. Spread specimen on a warm slide and examine at once for the amebae which are easily recognized by their active pseudopodiac movement. The ameba will contain red blood cells when blood is present. Their walls are very delicate and will not move when chilled. Cysts show granules and when they are older, the walls thicken and the granules disappear and they do not have over four nuclei. I do not think that they can be mistaken for any other organism other than the Ameba coli. It is slightly noticeable in its pseudopodiac movement. It never contains red blood cells and it will contain many bacteria and particles of fecal matter. The cysts will have many nuclei.

I believe that we are fortunate in having the Ameba coli in our colon for its bactericidal work and feel that I am safe in saying there are some reports from clinicians that Ameba coli is being mistaken for the Endomeba histolytica. It has been my misfortune to have to make many examinations in these cases before I was able definitely to make a diagnosis and I am sure that others have had the same experience. I know that if you examine feces passed at home and then carried to the doctor's office, you will have a harder time than I have in making your diagnosis. In fact I have little respect for a diagnosis from cold feces.

Proctoscopic examination is easily made, for every doctor is familiar with the proctoscope. I prefer to have the patient after the bowels have moved several times for the view in the rectum is better, the particles of mucus are very easy to get and the fecal matter is out of the way. Also the view of the mucosa is better and if the amebic infection is present, small round ulcers are visible, varying from very small to the size of a dime and even larger and with smooth edges. The mucosa, although involved to some extent, shows very little change in appearance. It does not have the reddened, edematous appearance that we see when we have those ragged-edge ulcers that are found in other types of infection.

X-ray examination is usually made for the negative rather than the positive value, for most of the ulceration is in the cecum and the descending colon. With the barium enema you are able in some cases to find a narrowing of the lumen of the cecum and the descending colon with scar tissue giving the colon a smooth appearance. I have but little respect for an x-ray diagnosis in these cases and x-ray diagnosticians can tell you more about it and I am willing to take all they may want to say to me about it.

Treatment: The first consideration in all treatment seems to be diet and in this type of colitis I find but little value in diet except the limiting of fats to as little as possible and plenty of nourishing foods with plenty of fruits and vegetables.

Medicines: I shall take them as I have found best in my cases. First, is emetine, one-half grain every two days for six or eight doses and repeat this every six weeks for one to six times, depending on the severity and progress of the case. In one case one six-dose treatment relieved all symptoms and I believe the patient was cured. In another case, six treatments at six-weeks intervals were given before all symptoms were relieved. I feel that treatment should be governed by the relief of symptoms.

By mouth I have the best results with diodoquim, one tablet three times a day for two weeks, rest a month and repeat another two-weeks' treatment. I have had good results in two cases and have alternated it with emetine and think it is the least toxic of any one of the late treatments that are on the market now.

Carbosan and chinafon I have tried in a few cases and got fine results, only I had to cut the dose to one tablet a day because of development of toxic symptoms. I think it unsafe to risk too much with any of the treatments on a patient that you can not keep a close watch on. A number of other preparations are on the market and you may have tried them with good results, but I have not and shall not comment on them.

CASE REPORTS

Case 1. Mr. H. E., age 31, farmer and cattle buyer, consulted me in 1914, complaining of weakness, shortness of breath on exertion and griping pains in lower bowels with several stools daily. He had had several attacks of diarrhea, first one more than a year ago, and thought he ate some bad bananas around the docks in Mobile while there with a car of cattle. His general examination was negative. A smear was taken from his rectum with dressing forceps and a rectal speculum for vision, and was examined. Several smears were examined before a positive diagnosis was made. He was given two eight-dose treatments of emetine five weeks apart and is well today so far as I know. This case was reported to the State Board of Health and a correspondence was begun at once, telling me that I was mistaken in my diagnosis, asking me to change it as this was a tropical disease and there had never been but two or three cases in Mississippi, and wanting me to get a specimen of feces and send to the laboratory for a check on my diagnosis.

Case 2. Mr. J. D., age 68, retired farmer. He had been my patient for years and kept tincture of opium all the time for checking his bowels. I noticed a bloody mucus stool that he had just passed and after repeated examinations, I was able to find the amebae and lots of cysts. This was the first case that I had ever seen with ulcers in the mucosa and I did not know then what was causing them for I had never heard of them at that time (1917). He was given a number of treatments of emetine and relieved of some symptoms, but was never relieved entirely of frequent stools. He died some years later—a victim of diabetes.

Case 3. Prof. E. L., age 46, had been teaching school twenty-five years and for years had frequent attacks of diarrhea and several soft stools daily. Two years previously a diagnosis was made in a clinic in Memphis and an operation (appendectomy) was done. He said his colon was washed with an iodine solution for ten days and he was dismissed as well. His symptoms recurred in a few weeks. He then became my patient and was very weak. He was six feet and two inches tall and weighed only 130 pounds. He was given emetine each two days for eight doses and repeated each six weeks for about one year. For eight years he has seemed well, weighs about 190 pounds, works every day and feels well, and I believe he is.

Case 4. Mr. M. H., age 41. This man gives a definite history of the first symptoms while in the Army of Occupation in Germany in 1919. He thought it was due to eating strawberries that were stolen in a kitchen raid. I have found the amebae and they were also found while he was in a veterans hospital. All treatments have been tried on him and he develops toxic symptoms. He has been kept on a strict diet for diabetes and from some unknown cause has had but little improvement and I don't think he ever will now.

I hope I have not burdened you with this discussion. It is practically all from my experience as the published literature has been very limited and the profession is asleep in regard to this infection. Quite a number do not yet believe that we have it with us other than rare cases. In my opinion every general pracitioner has had and may now have some cases that he is examining and treating for something else. If the profession does not awaken, one of these days it will be a bigger problem than typhoid fever or diphtheria. In the last five years I have had more cases of amebic colitis than I have had of typhoid fever. It is an infection carried by carriers and no one is immune. The only way to check the spread is to keep a careful watch on our patients for an early diagnosis and persistent and cautious treatment until all symptoms are relieved and stool examinations are clear.

DISCUSSIONS

DR. GILRUTH DARRINGTON, (Yazoo

City): Dr. Caldwell has covered this broad subject in a very thorough and concise manner and there is very little I see to add. However, I am vitally interested in this subject, having been an unfortunate victim myself, of the Chicago epidemic a few years ago. I much prefer the term amebiasis to amebic dysentery when discussing the pathological picture of an individual infected with Endomeba histolytica because dysentery is only one reaction to the amebic infection and not such a common one. The chief symptoms of amebiasis is weakness or fatigability and vague intestinal disturbances. The victims are always tired and usually nervous, the symptoms frequently simulating an excess thyroid or tubercular condition. The intestinal symptoms are not typical, varying from constipation with gas and distention to mild or severe diarrhea. That is the clinical picture of amebiasis. The clinical picture of amebic dysentery is of course characterized by frequent bloody mucous stools with colic-like pains in the abdomen. This is usually the very acute and rare manifestation of tissue invasion of the ameba.

This diagnosis, of course, should only be made on frequent examination of the stools and the demonstration in the loose stool of the live ameba or in the solid stool of the cysts. Let me say, however, that the recognition of the pathological cysts are not easy and requires a laboratory technician of considerable experience to recognize them. Therefore, I think that under certain conditions that one is justified in giving one of the harmless amebicides as a therapeutic test when expert laboratory facilities are not available.

Treatment: Emetin only to check the active diarrhea or the complications as liver abscess. Yateen, chiniofor, or anyoden are the choices. They are all practically the same drug. Harmless but annoying because they produce a diarrhea. The best arsenical is carbarsone because of low toxicity but there is always a danger of finding a person sensitive to arsenic and all arsenicals should be given with caution. Dr. H. G. Hummel, of Little Rock, Ark., is using a new iodine preparation known as diadoquin which does not produce the disagreeable diarrhea that anyoden and the other iodine preparations do.

The thought that I would like to leave with you is, to keep in mind the weakness and nervousness that goes with amebiasis and do not think of this infection only in terms of dysentery.

DR. N. C. WOMACK (Jackson): I have been interested in amebiasis for a good long while. For the last year I have been making routine examinations of all cases that go through the office for ameba. It is quite a tiresome task. We have not limited ourselves. If we establish in our own minds by different tests that you had to examine a warm stool for your cysts of your amebae we do so. In the bloody discharge the stage of the ameba is in the transition, and it is difficult to find, although by repeated examinations it can be found if they are there. It is said that even when they are usually around the head of the colon or in the neighborhood of the appendix, that they often fade out or die before they get down to the lower bowel. I have been examining babies routinely. I found one baby with a perfectly good history, had had a diarrhea since it was four weeks old, and we demonstrated amebae. Did not know where it came from. Thirty-five percent were in the children under a year of age, and, by the way, most of them were in different laboratories, so we are pretty secure in our position. Amebiasis is a world-wide disease. In my own practice I have found 14 percent of the children examined infected with it. We should not say amebic dysentery, but amebiasis—most of the time they have no diarrhea. You won't find it unless you look for it. You will find that when a party comes to the doctor there is something wrong with him—that may be just one of them. I do not believe there is such a thing as a carrier. They are making minute ulcers and they are healing, and this is going on all the time. Stewart says there is a metabolic equilibrium maintained between the host and the carrier until such time as the infection gets far enough developed that it produces symptoms. I do not think we should use the term carrier, but your pathology is microscopic. You can not detect it but it is going on, and we should abandon the term carrier. I thank you.

DR. E. T. WHITE (Greenville): I enjoyed Dr. Caldwell's paper very much. I think it is very timely. We, in Greenville, at our clinic for the last three or four years have come to the conclusion that amebiasis is not a rare disease, but probably the most common disease that we have to deal with. I do not mean amebic dysentery; the symptoms may be almost anything. I remember about two years ago a man came to our clinic whose complaint was pain in the lumbar vertebrae. He had been to many clinics and doctors. He never had any symptoms of dysentery, but on routine examination we found amebae, and put him on treatment and his lumbar trouble cleared up. Quite recently we had a patient whose complaint was his eyes. He thought he needed glasses. They examined him, did find some little trouble with his eyes, fitted him up with glasses, but he got no better, and he finally came back and wanted to turn the glasses back in, so they examined him further and we found that he had amebiasis. He had never had any intestinal symptoms and after treating him for his amebiasis his eye symptoms entirely cleared up.

Now in regard to examination, I think that is very important. Dr. Caldwell stated that the stools sent from the home were not satisfactory. The ordinary stools that you pass I find are very unsatisfactory for examination if the patient is not suffering with a dysentery. Of course, if they have a bloody mucous dysentery you do not need to give them anything, but in the ordinary routine examination I find that the best method is to give the patient a big dose of salts and examine either the second or third specimen, and you will invariably find them present. I have had some I have had to re-check, but you will find you pick them up. You have learned here that your specimen must be kept warm. If you put your specimen in an incubator and leave it there for 30 minutes and make an examination you won't find the amebae. They disintegrate very rapidly. The proper time is to make the examination just as soon as you can get to it after the stool is passed. In that way you will pick up a much higher percentage. I believe some time in the early part of this year I looked up our statistics and we ran about 12.2 percent positive and we made a routine examination on all of them going through the clinic.

DR. JOSEPH BRENNEMAN (Chicago, Ill.): Quite a lot has been said about Chicago. The whole question of amebic dysentery is a problem in my mind. We ought to know something about it. I would like to ask the essayist a question, and that is whether he agrees with the other statements made that there is probably no such thing as a carrier. They tell us up in Chicago that five to ten percent there are amebic dysentery carriers. Our health commissioner at one time told me that he thought it would be a good thing for all of us to be examined for amebic dysentery. There were 287 of us, which required about 1500 examinations. Inasmuch as we had never, so far as I know, had an amebic dysentery in the hospital I told him I thought the procedure was too costly to contemplate, when you consider the method in which it had to be done and we passed it up.

The thing I am wondering about is, you have in many of these cases some mild symptoms; if there are no carriers are you sure amebic dysentery is causing the thing? We also have a person who is especially expert; he has done a lot of this work. We think that it requires an examination to differentiate this amebic from the other amebic that are getting in the bowels. I would like to have you say something about whether it is difficult, whether one can ordinarily accept this diagnosis unless it was made from a very careful source, and above all, whether there is such a thing as a carrier, and again whether the carrier problem enters into the question of whether these things may possibly be due to something else instead of to an amebic dysentery.

DR. CALDWELL (closing): I do not care to say very much in closing, but in answer to the statement made by Dr. Womack as to getting the amebae in the examination, it is very doubtful whether they live from the colon on down. I thought I made it clear that I try to get this mucus from those ulcers in the rectum and when you have these ulcers you can almost make your positive diagnosis from that alone. If you take that blood stained mucus from that ulcer and put it on your slide you have the blood and you have the amebae. Sit down and watch those amebae engulf the red blood cells.

Now as to Dr. Brenneman's question about carriers. There are certain people who are carriers. Dr. Springer proved that very definitely in the Chicago epidemic and that amebae get in your system and the cysts can live for weeks and days. You take them into your system, they are transferred from one person to another just as hook worm.

You don't take hook worm into your mouth, you take them into your system.

Just one other statement, I do not make a diagnosis from the cysts in examining the fecal contents. There are plenty of laboratory men that do know those cysts when they see them, but I have not yet had the nerve to make a positive diagnosis on just the cysts alone, but if I find the cysts and know they are from the rectum I feel I have a perfect diagnosis and I warn you gentlemen not to risk your patients with too much toxic poison.

The Role of Surgery in the Treatment of Chest Diseases*

JOHN HARTER, M.D.
Sanatorium, Miss.

Thoracic surgery in the last few years has made many inroads into diseases that were formerly considered relegated to the field of medical practice alone. Obviously, to present the entire aspect of present day thoracic surgery in the space allotted here would be impossible. This article will cover the more important phases of thoracic surgery, considering the surgical treatment only in principles.

The chest, although enclosed within a bony cage, can be examined by more methods than any other portion of the body. Examination of the chest consists of inspection as to shape and mobility. Percussion and auscultation give many evidences of the pathological processes within the chest. Roentgenology of the chest allows one to visualize the pathological processes. The trachea and bronchi can be inspected directly by the bronchoscope. Lipiodol may be injected into the bronchi by way of the trachea for roentgenological outline of the bronchi and localization of other pathological processes. The pleural space can be inspected directly by the thoracoscope. Examinations of the sputum are of great diagnostic significance in pulmonary lesions. Lesions of the heart may be examined additionally by the use of the electrocardiograph and venous pressure. Venous pressure readings may be of significance in lesions of the mediastinum, as well as of the heart. With all of these methods of inspecting and examining the chest at hand it is possible to diagnose lesions of the chest with a fair degree of accuracy.

At the present time by far the most important field of the thoracic surgeon is in the treatment of tuberculosis. Today we realize that tuberculosis can not be treated adequately by rest in bed alone. Collapse therapy, that is, the collapse of the diseased lung or a portion of the diseased lung, by one method or another has become the rule rather than the last resort.

The first line of defense in the collapse therapy program of the tuberculosis patient is pneumothorax. Most patients with minimal lesions should have pneumothorax of a sufficient degree to collapse the area of diseased lung. Too frequently patients with minimal lesions are told to stay in bed for a few months only to find that the disease has spread in spite of the bed rest so that the patient requires major surgical operations in order to collapse the diseased area, and many times the patient is beyond help. More patients show progress of minimal lesions than regress on rest therapy. Since we can not tell at the outset what the patient is going to do, it is much safer to give pneumothorax in all minimal cases. Pneumothorax is often used to allow sufficient healing to occur before some other type of collapse therapy can be undertaken. Pneumothorax is frequently ineffective in the collapse of the diseased portion of the lung because of adhesions between the parietal and visceral pleurae. The adhesions may be severed in many instances by the closed method with the use of the thoracoscope. This instrument is about the size of the cystoscope and the telescopic lens system is similar to the cystoscope. The thoracoscope can be inserted between the ribs under local anesthesia with very little disturbance of the patient. Many adhesions are too large to be cut by this method. Large adhesions frequently contain lung tissue. If the lung tissue is opened at the time the adhesion is severed tuberculous empyema usually results.

Phrenic nerve interruption, our second line of defense in the collapse therapy program of tuberculosis, is used essentially for two reasons: first, if pneumothorax is impossible and the lesion minimal, healing can be more certainly assured by diaphragmatic paralysis; second, if there is cavity formation, diaphragmatic paralysis may be used as a trial to close the cavity or to allow sufficient healing for other types of collapse therapy. Permanent diaphragmatic paralysis is dangerous because collapse therapy may be indicated on the contralateral side at some future date and is considerably more hazardous in the presence of a paralyzed diaphragm on the original side. Also, in the absence of healing by diaphragmatic paralysis, other forms of collapse therapy may be necessary on the same side and are more hazardous in the presence of a paralyzed diaphragm. For these reasons we use the temporary type of phrenic paralysis, which is accomplished by crushing the nerve in the neck. The paralysis lasts for about six months. At the end of six months if there is not considerable improvement, some other type of collapse therapy is necessary. If indicated, the paralysis may be re-established for another period of six months.

---

*Read before the Section on Medicine at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 11, 1937.

A scalenotomy is sometimes used in conjunction with the phrenic nerve paralysis, especially for disease located in the apex. The severing of the scalene muscles paralyzes the upper portion of chest and allows added rest at the apex of the lung. This operation is of questionable value and most patients for whom it is indicated are either too far advanced to expect much help from the operation, or the patient requires a thoracoplasty.

Another operation sometimes done is intercostal nerve interruption, which can be either temporary or permanent, for the paralysis of the intercostal muscles, thus giving added rest to the chest.

Patients with apical cavity formation in whom the cavities are two centimeters or over in size and in whom pneumothorax can not be obtained, can usually be cured only by the use of thoracoplasty. Thoracoplasty, in the last few years, has made great strides in the treatment of the far advanced case of tuberculosis. Patients who have the ideal type of disease for thoracoplasty, show a greater proportion of cures than with any other type of tuberculosis therapy. Also, it must be remembered that these patients, unless given thoracoplasty, are completely incapacitated or dead within a few years. This is the formerly hopeless case of tuberculosis. We are now able to put about ninety per cent of the patients having thoracoplasty back to earning a living.

Thorcoplasty, as being done in the Mississippi State Tuberculosis Sanatorium, consists of a three or four stage operation, depending upon the extent of the lung involvement and the patient's condition. At the first stage the first three ribs are resected from the spine to the sternum, including the transverse processes of the vertebra. The ligamentous attachments of the pleura at the cervical spine are severed and the lung released from the endothoracic fascia to a level just above the hilum. This allows a collapse of the apex similar to that obtained with pneumothorax. The second stage consists of the removal of about one-third of the 4th, 5th, and 6th ribs posteriorly from the spine, including the transverse processes. In disease limited to the apex it is necessary to do at least seven ribs in order to allow the scapula to fall in to the resected portion of the chest. The third stage in the apical case consists then of removal of the 7th rib and the anterior portions of the 4th, 5th, and 6th ribs which have previously been partially resected. If necessary, the thoracoplasty can be continued down to the 10th or 11th rib completely to collapse that side of the chest. By the use of the seven-rib thoracoplasty it is possible to give adequate collapse to the diseased area and save the lower portion of the lung. Here again, if the diaphram on the side of the side of the thoracoplasty is permanently paralyzed, it is impossible to get good collapse by means of the thoracoplasty, and the remaining good lung on the side of the thoracoplasty is of very little value to the patient.

The deformity from thoracoplasty is not discernible in the fully dressed patient. The reason for this is that the shoulder girdle is not disturbed and the clothed patient appears symmetrical. The disability of the patient following thoracoplasty is usually very little, if any. We do not advise that they return to strenuous labor, but have found them doing lumberjack work in the woods. Lung volume studies have shown very little reduction of the lung volume before and after thoracoplasty. This we think is due to the fact that the collapse is limited more or less to the diseased lung.

For the patient who is too sick for thoracoplasty, usually having a very large apical cavity, it is possible to collapse the cavity by the use of an operation called plombage, which consists of separating the parietal pleura from the endothoracic fascia over the apex and inserting a paraffin pack to keep the lung from re-expanding. This operation is usually followed by thoracoplasty and removal of the paraffin if the condition warrants it.

The next most important disease of the chest from the standpoint of the thoracic surgeon is bronchiectasis. Bronchiectasis usually occurs at either base or both. The patient may or may not have sputum. He usually complains of cough. Many have hemoptysis of alarming nature, show exacerbations of the disease during the winter and retrogression during warm, dry weather. The disease is steadily progressive, apparently progressing with each upper respiratory infection. The patient may show considerable improvement while in the hospital or at rest at home, but when put back to an active life, soon returns to his former condition. Treatment of bronchiectasis by autogenous vaccine, postural drainage, lipiodol injections, or bronchoscopy, is without avail as to the eventual curing of the patient. Recently x-ray therapy has been advised as a form of treatment. However, it must be remembered that x-ray therapy sufficient to cause the secretions of bronchiectasis to disappear, also causes secondary changes in the good lung tissue with loss of elasticity of the lung and does not cure the pathological process. The only type of treatment in which cures are shown is that of lobectomy, that is, the removal of the diseased portion of the lung. It is possible to remove one entire lung, or both lobes for bronchiectasis. The mortality rate of the disease when followed over a period of years runs to about ninety per cent, the patients usually dying with pneumonia. The mortality rate of the operation has been about five per cent in recent years. This represents a mortality rate less than almost any intra-abdominal operation as performed routinely in most hospitals at the present time. The operation is performed usually in two stages, the first stage consisting of freeing the pleural adhesions and cutting of the pulmonary ligament. This prepares the pleura for the inevitable empyema that follows the removal of the lobe at the second stage operation. The pleura is drained at the time of the second stage operation so that the patient rarely shows any toxicity from the resultant empyema. There is no patient so grateful as the postoperative bronchiectasis patient who has been relieved of his constant coughing and expectoration.

Carcinoma of the lung can be removed as carcinoma elsewhere in the body. The diagnosis of cancer of the lung is frequently difficult. Coughing and hemoptysis are the most consistent complaints. The patient may complain of pain in the chest and may have cavity formation stimulating tuberculosis or lung abscess. The roentgenological findings may show a mass at the hilum, may show pneumonic consolidation, or may show a mass in the periphery of the lung. Carcinoma of the lung is almost always bronchogenic and for this reason can usually be diagnosed by biopsy through the bronchoscope. If the carcinoma is diagnosed before metastases have occurred, it is possible to remove either the lobe involved or the complete lung on that side. Because of the age of the individuals concerned, the operation carries a fairly high mortality rate, being around twenty per cent. The disease carries a mortality rate of one hundred per cent. For this reason we feel that the operation is well worth while. Patients having complete pneumonectomy are usually quite comfortable and frequently well able to earn their living.

Lung abscess in my opinion is still best treated by the methods advised by Graham some years ago, of cautery drainage to the outside. Some men have recently advocated lobectomy for chronic lung abscess but for this disease the operation has shown a considerably higher mortality rate than that of cautery drainage. The operation is usually done in two stages, the first stage designed to assure adhesions between the visceral and parietal pleura. This is accomplished by packing gauze beneath the ribs of the area desired for drainage. The second stage consists of the opening of the lung abscess with the actual cautery. It is quite important that the actual cautery be used and not the diathermy type of cautery. The actual cautery is much more efficacious in the control of hemorrhage.

The question in lung abscess is when and when not to drain. Rienhoff, of New York, at the present time is advocating immediate drainage and shows a very low mortality rate for his series. Many men advocate waiting from one to three months before drainage. This depends considerably upon the individual case, the organisms concerned, and the etiological agent. Generally speaking, if an abscess has not shown healing at the end of a month it had best be drained. Conservative treatment consists of postural drainage and bronchoscopic drainage. Pneumothorax should never be used in the treatment of lung abscess. In the first place, the organisms growing in a lung abscess are anaerobic in character and collapse of the lung further prepares the field for their growth. Moreover, pneumothorax in the presence of lung abscess is extremely dangerous from the standpoint of causing empyema. The reason for this is that practically all abscesses of the lung lie within a centimeter or less of the visceral pleura. Adhesions form quickly near the abscess. A pneumothorax may rupture an adhesion, allowing the abscess contents to drain into the pleural cavity. Empyema complicating a lung abscess is usually of the most serious consequence.

Many diseases of the esophagus can be treated by thoracic surgery. Carcinoma of the esophagus may be excised and a new esophagus built subcutaneously from the neck to the stomach. Stricture of the esophagus may be treated somewhat the same way. Cardiospasm or stricture of the cardio-esophageal junction may be treated somewhat the same way. Cardiospasm or stricture of the cardio-esophageal junction may be treated by dilatation or plastic operations to enlarge the orifice.

Mediastinal tumors should be removed in most instances. These tumors usually consist of dermoids, lipomas, neuromas, thymomas, and occasional aberrant thyroids. Most of these tumors continue to enlarge, causing pressure symptoms in the mediastinum and eventual death, if not removed.

Treatment of the heart has been invaded by the thoracic surgeon in many conditions. Adhesive pericarditis with the formation of ascites and cirrhosis of the liver can be relieved in many instances by the removal of the pericardium, allowing the free inflow of blood from the inferior vena cava to the heart.

The treatment of coronary disease has come into the realm of surgery in the last few years. The pain can be relieved by blocking the intercostal nerves. The circulation can be reestablished in the heart by the use of muscle grafts to the heart muscle itself, as advocated by Claude Beck. The heart and metabolism in general may be slowed considerably by the total extirpation of the thyroid gland.

The treatment of hypertension has been invaded by the neuro-surgeon, rather than the thoracic surgeon. However, the operation lies within the thorax, the operation being that of splanchnicectomy, that is, the removal of the splanchnic ganglia lying along the vertebrae in the lower portion of the thorax. The operation has met with some success in the younger patients in whom arteriosclerosis has not occurred.

The operative treatment of diaphragmatic hernia lies within the scope of the thoracic surgeon.

Many years of physiological, pathological, and surgical research have been necessary to produce the safe and effective thoracic surgery of today.

Mississippi State Medical Association

ORGANIZED 1867

Leon S Lippincott, M.D. .... Editor
D. W. Jones, M.D. .... Associate Editor
G. S. Bryan ....Associate Editor

COUNCILORS

J W. Lucas, M.D. .... First District
L L. Minor, M.D. .... Second District
R. B. Caldwell, M.D. .... Third District
Thomas J. Brown, M.D. .... Fourth District
W. H. Watson, M.D. .... Fifth District
H. Lowry Rush, M.D. .... Sixth District
J. Gould Gardner, M.D. .... Seventh District
W. H. Frizell, M.D. .... Eighth District
D. J. Williams, M.D. .... Ninth District

Papers and news material for publication should be received not later than the fifth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof. The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Box 303, Vicksburg, Mississippi.

FROM OUR PRESIDENT

We had a most wonderful meetnig of our State Medical Association at Meridian last month. The program was composed of papers and lectures by some of the best talent in our state and, by invited essayists of national and international reputation. These papers and discussions were of special interest to the specialist as well as to the general practitioner. All sessions were unusually well attended, manifesting an increased interest in scientific medicine and surgery. The section on preventive medicine was one of the best in the history of our association.

The attendance at the meeting was beyond our expectations, and the paid membership will probably be greater than that of 1936. There was an atmosphere of good fellowship everywhere, more noticeable among the doctors who were fortunate enough to have their wives with them. We are expecting the greatest meeting, with the largest attendance of both doctors and the auxiliary in the state's history, at Jackson next year. Begin now to make your plans to attend the meeting there.

The program committee is already at work and should you be invited to read or discuss a paper by the chairman of some section, please accept promptly, and in so doing contribute your part in developing some latent medical and surgical talent in the country and in making the 1938 meeting at Jackson the banner year for the Mississippi State Medical Association. The capital city of Jackson and the Central Medical Society have already begun making plans for our meeting and will give us a most royal reception. Let us be there.

Wesson, W. L. Little,
June 5, 1937 President

NOTES FROM THE HOUSE OF DELEGATES

Nominations for Members of the State Board of Health—

From First District: J. W. Lipscomb, Columbus; J. R. Hill, Corinth; M. Q. Ewing, Amory.

From Third District: L. B. Austin, Rosedale; R. B. Yates, Greenwood; B. C. Covington, Marks.

Secretary

An ovation of love and respect was fittingly accorded to Secretary Dye at the opening of the House of Delegates. His recovery from a serious illness which kept him from the meeting of 1936 is a source of gratification to every member of the association.

History

The report of the historian suggested that the history of the association should be published as soon as funds are available. This is especially important as only one copy of most of the mterial is available. If lost or destroyed much of it could not be replaced. On request, two printers had presented estimates on a good attractive book, with heavy glazed paper, a book that any member of the association might be proud to have in his library. A dummy of the proposed form was submitted. Such a book, to contain the history, biographies of the presidents, and an alphabetical roster of all members of the association since its organization, can be had, if 2000 copies are ordered for 90 cents per copy. A similar but somewhat smaller book would cost 75 cents if 2000 copies are ordered; or 84 cents if 1500 are ordered.

It is felt that 2000 copies should be printed inasmuch as every member of the association should have at least one copy, and it is not likely that another history would be published for fifteen to twenty years. This book should be distributed to the medical libraries of other associations.

Committee on Publication

The report of the Committee on Publication showed that during the past year there have been published 24 papers read before this association and 19 papers read before component societies. The news section has carried items from 20 component societies from one to eight times each and from county editors from one to twelve times each. L. L. Minor for DeSoto County and H. T. Ims for Warren County have not missed a month. News was received from W. B. Dickins for Leflore County eleven times. News of Leflore County for the one other month was sent by the editor but not received. News was received from M. L. Montgomery for Winston County eleven times. Staff transactions from 14 hospitals have been published one to twelve times each. Thirty-one others, including officers and members, have contributed one to ten times each. Grateful acknowledgment for interest and cooperation was extended.

It was again recommended that all material having to do with the Association or its component societies be submitted to the editor rather than directly to *The Mississippi Doctor*. The Publication Committee is responsible for all publications of the Association.

Thanks were expressed to the editor of *The Mississippi Doctor* for courtesies and consideration.

FROM THE INCOMING PRESIDENT

You have just heard a most wonderful discussion of the advancement of medicine and something in regard to the progress of medical affairs in Mississippi. All these things I endorse. Now I am not a graduate in medicine, but later, of 1889. I have watched the progress of the affairs of the State Medical Association which has been just as wonderful. I hope we shall continue in that line.

Now in the proceedings this morning let's look to the best interests of the majority of our citizens. Let's do not hurt the feelings of one another. Let's work as brothers in the advancement of the care of the sick and the affairs of the State Medical Association. As to other matters, you will hear from me from time to time. At this time I want to tell you that I hope to meet the doctors of every section of Mississippi. I hope that the secretaries of the different societies or the councilors of each district will let me know of some time at which they will have a meeting at which I may meet as many as possible. I have things I want to tell you that I thing will be of interest to the advancement of our profession, especially a brotherly and friendly spirit one to another.

A welcome and much needed addition to the equipment of the association used for the first time this year was a fine stereoptican and screen purchased by direction of the association by a committee consisting of A. C. Covington, E. LeRoy Wilkins and N. C. Knight working with the secretary. Many papers read before the association are illustrated with lantern slides and in some past years there have been disappointments because essayists were unable to present their papers as prepared. It is a worthwhile investment.

ISOLATION HOSPITAL

On suggestion of President Garrison and by motion of D. W. Jones, the following resolution was adopted:

RESOLVED that a committee of five from the State Medical Association be appointed by the president to present to the governor and the legislature the urgent need of the establishment and equipment of an isolation hospital for the care and treatment of special types of contagious and infectious diseases such as are not admissable to ordinary hospitals.

BUDGET FOR 1937-38

President's expense account	$200.00
Secretary's salary	500.00
Secretary's expense account	100.00
Editor's expense account	300.00
Council's expense account	100.00
Medical Journal	900.00
Transactions	300.00
Expense annual meeting	50.00
Incidentals	50.00
Historian's expense	50.00
	$2,550.00

PROPOSED AMENDMENTS TO THE CONSTITUTION

RESOLVED that Article V, Section 2, of the Constitution be amended by striking out said section 2 and substituting the following:

Section 2. The time and place for holding the annual session shall be fixed by the House of Delegates, but, in emergencies, the Council shall have the power to change the time or the place or both, of the annual session.

The President may, with the consent of the Council, change the date for holding an annual session.

—Proposed by J. Rice Williams.

RESOLVED that Article VII of the Constitution be amended by adding the words "and members of the elected Standing Committees," so that said section when so amended shall read:

The House of Delegates shall be the legislative and business body of the association and shall consist of (1) delegates selected by the component societies; (2) the officers of the association; (3) all ex-presidents provided they still be members of the association; and (4) all members of the elected Standing Committees.

—Proposed by J. Rice Williams.

AMENDMENTS TO THE BY-LAWS ADOPTED

RESOLVED that Section 2, of Chapter 2, of the By-Laws be striken out and the following substituted:

Section 2. Special sessions of either the association or of the House of Delegates may be called by the President with the consent of the Council. The Council may call a special session of the association or of the House of Delegates.

—Presented by J. Rice Williams.

RESOLVED that Chapter XIII, Section 12, of the By-Laws be amended by adding to the end thereof the following: "provided, that the secretary of any county society may report to the secretary of the Mississippi State Medical Association through the secretary of the district medical society," so that said section when so amended shall read:

Section 12. The secretary of each county society shall keep a roster of its members and a list of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary. He shall furnish an official report containing such information, upon blanks supplied him for the purpose to the secretary of this association by February 1st of each year, and at the same time that the dues accruing from the annual assessment are sent in, and he shall remit promptly thereafter all dues as paid in to him by members, giving date of payment. Keeping such roster the secretary shall note any changes in the personel of the profession, by death or by removal to or from the county, and in making his annual report, he shall be certain to account for every physician who has lived in the county during the year. He shall send carbon copies of reports to the councilor of his district. Provided, that the secretary of any county society may report to the secretary of the Mississippi State Medical Association through the secretary of the district society.

—Presented by J. Rice Williams.

ENTERTAINMENT AT MERIDIAN

Thanks and appreciation were due and expressed to the doctors of Meridian and the members of the East Mississippi Medical Society, headed by Dr. I. W. Cooper, for one of the most enjoyable meetings ever held. Every provision was made for carrying on the business of the association and for the comfort and the entertainment of the visitors. Features included a fellowship luncheon Tuesday noon, golf by courtesy of the Northwood Country Club, a dinner for past presidents, a barbecue at Highland Park Wednesdy afternoon, and a dance at the Northwood Country Club Wednesday night. The Lamar Hotel, headquarters, other hotels, the press, and, in fact, the whole city did everything possible to make the occasion one that will be long remembered.

SOCIAL DISEASES

By unanimous consent Dr. T. G. Cleveland, representing the Lauderdale County Medical Society, appeared before the House of Delegates to ask its support in a movement to eradicate the social diseases in this state. Dr. Cleveland said in part, "The Lauderdale County Medical Society some time ago, in regular session began a movement looking towards the eradication of the social diseses, syphilis and gonorrhea. The subject has been of very much importance to us and it has been increased by our constant association with the public health service here under the direction of Dr. Galloway.

"A few days ago we had a meeting and a committee was appointed, of which the speaker is chairman, to ask that the matter be brought before the State Medical Association, and attempting or endeavoring to have the movement endorsed by the State Association.

"Syphilis or our social diseases, and especially syphilis is the forerunner of the occupants of jails, asylums, penitentiaries, mental defective homes, schools and other like institutions. Possibly you do not know that in 1936 there were more than 16.000 new cases of syphilis in the State of Mississippi. Perhaps you do not know that Mississippi is not one of the states affiliated with the national Social Hygiene Association, but that Mississippi heads the list according to population in the number of cases of syphilis in the United States. Mississippi heads the list; that is a shame and a disgrace to us. If we would have a better country we would not have to pay so many taxes for our state institutions. We would not have so many criminals nor so many constitional psychopathics and various other conditions and monstrosities as at present. Syphilis itself begins so insidiously that you pay no attention to it. Gonorrhea comes in with a fire and goes out with a calm. Syphilis comes in with a calm and goes out with a fire, ten to twenty years later, with a stroke of paralysis, and finally the patient is an occupant of an insane asylum.

"It is our object here this morning to ask that this body endorse this social hygiene movement and make it a statewide organization. Those of us here in Lauderdale County have begun the fight already. We are interested and we want it to spread. We do not want to be left alone; we want to be taken under the wing of the State Association. We ask that you men here in session this morning recognize this state social hygiene matter and that you endorse it and give us the privilege of becoming affiliated with you that we can go forward looking towards the eradication of the social diseases, with special reference to syphilis. In ten years we shall scratch the surface. Generations yet unborn will approve of what we shall do today. We ask you to consider us." (Applause).

DR. FELIX J. UNDERWOOD (Jackson): I feel that the medical group here has acted very wisely in meeting and discussing and deciding to form such an organization on a statewide basis. I feel that the profession ought to guide and control and direct such movements. The only way the profession can do that is to assume leadership, which is rightfully ours, and the opportunity is afforded here now, and it is my personal feeling that the movement sould be supported by the State Medical Association. I so move.

Motion was seconded and carried.

HOSPITALIZATION INSURANCE

At the Tuesday morning session of the House of Delegates, the Board of Directors of the Mississippi State Hospital Association, by unanimous consent, presented the matter of fixed periodic payments for hospital services. It was pointed out that the State Hospital Association had been considering and studying plans, ways and means for several years and had sought and received advice from the experts of the country in this field, from the American Hospital Association and from the Rosenwald Fund. Representatives of the Association had visited many places where hospitalization insurance is in effect and studied the plans. At the meeting of the Association this year, at a lengthy session, all points were discussed and the association went on record as approving a non-profit plan for hospitalization insurance and voted to put such a plan into effect in Mississippi. It is to be organized from the standpoint of benefit to the people. The patient is the first to be considered. There are to be no dividends to stockholders. The hospitals that care for the patients are to receive no profit; they will be paid their regular rates when a patient is admitted.

It was shown that in those states where such non-profit plans are in operation, where hospitalization insurance has been successful, the medical profession and the medical societies have worked with the hospital associations. There is such a plan in Alabama which is working well.

The Mississippi State Medical Association was asked for the appointment of a committee to work with the State Hospital Association in organizing and putting such a plan into operation.

Dr. Hugh Gamble, Greenville, moved that a committee of five be appointed by the president to act in cooperation with the State Hospital Association in establishing a plan of hospitalization insurance of a non-profit nature. The motion was seconded.

In speaking to his motion, Dr. Gamble stated that this organization to be effective and to be successful should first of all take into consideration the individual carrying the policy, that it should be non-profit, and that it should be under the control of the medical and hospital associations. Those plans that have been successful have been so sponsored. If the medical association in connection with the hospital association endorses it, it will succeed. It was felt that consideration should be given first of all to the implications of commercializing such an organization. The money either comes from the individual policy holder or from the hospital and ultimately it is possible to visualize where it is going to reach out and affect the physician himself, whereas with a non-profit organization, catering to the individual and paying the hospital its full rates, there is no reason to have any fear whatsoever as to the standing of the medical profession in the matter. It sould be kept under the control of the medical profession and will be one of the best means of preventing any profit grabbing; that is the organization which was endorsed by the State Hospital Association. The State Hospital Association will go ahead and sponsor it.

Dr. Gamble continued, "If there is any question that may be brought up with reference to this matter, we feel that a free and open discussion is the best way to settle this once and for all time. The prepayment plan for hospitalization fees is coming. I do not think there is any question about it. We have all been thinking this matter over for several years. Personally, I was on the committee last year to investigate the matter. I visied several states where it is in operation. North Carolina has two very different plans. One was sponsored by Duke University and one was sponsored by the state hospital and state medical associations, each of which appointed three members of the board. The president of the medical association was an ex-officio member of the board of trustees and the president of the hospital association also. These members elected four others. That organization is comparatively young but it is making a success, is doing good work and is rapidly growing. In Alabama the set-up is somewhat different. The board of trustees is composed of one representative from each hospital which belongs to the association. The hospitals have to be approved by the president and board of censors of the Alabama Medical Association and by the Alabama Hospital Association. In other words, the endeavor is to keep the control of the organization in the hands of the medical profession, and I feel that it is important so far as the immediate success of the organization is concerned that such be the case."

The matter was further discussed by Drs. Jce E. Green, Laurel, J. Gould Gardner, Columbia, W. L. Little, Wesson, D. J. Williams, Gulfport, Harvey F. Garrison, Jackson, W. W. Crawford, Hattiesburg, G. S. Bryan, Amory, D. W. Jones, Jackson, and E. C. Parker, Gulfport.

The motion of Dr. Gamble as amended on motion of Dr. Williams, that a committee of five, to consist of members not financially interested in hospitals, be appointed by the incoming president to cooperate with the Mississippi State Hospital Association in the organization of a non-profit plan for fixed periodic payments for hospital services, was carried.

At the Thursday meeting of the House of Delegates, on motion of Dr. I. W. Cooper, Meridian, it was voted that the committee have full power to act for the association for the coming year.

The president has appointed the following committee: Drs. D. W. Jones, Jackson; T. M. Dye, Clarksdale; D. J. Williams, Gulfport; G. S. Bryan, Amory; Joe E. Green, Laurel.

NOMINATING COMMITTEE

The following nominating committee was selected by the members of the House of Delegates in caucuses by districts:

First District—Dr. G. Y. Gillespie, Greenwood.

Second District—Dr. S. E. Eason, New Albany.

Third District—Dr. V. B. Philpot, Houston.

Fourth District—Dr. T. J. Brown, Grenada.

Fifth District—Dr. Henry Boswell, Sanatorium.

Sixth District—Dr. I. W. Cooper, Meridian.

Seventh District—Dr. J. P. Culpepper, Hattiesburg.

Eight District—Dr. Lucien S. Gaudet, Natchez.

Ninth District—Dr. E. C. Parker, Gulfport.

CHANGE OF DATE OF MEETING

The following resolution was received: RESOLVED: That the Mississippi State Hospital Association memorialize the Mississippi State Medical Association to fix its annual meeting on a date that will not conflict with National Hospital Day.

J. Rice Williams,
Henry Boswell.

On motion of Dr. L. L. Minor, it was voted that when the association adjourn, it meet at some selected place on the fourth Tuesday of April each and every year, the idea being not to conflict with Hospital Day, which it appears is the 12th of May.

PRESIDENT OF THE WOMAN'S AUXILIARY

DR. FELIX J. UNDERWOOD (Jackson): At this time we have the very happy privilege of presenting to this group the president of the Woman's Auxiliary. I will ask Dr. Dan Williams' daughter to come forward.

MRS. DAN J. WILLIAMS (Gulfport): I am really and trully embarrassed because down in the bottom of a trunk that Dr. Williams has not seen in eighteen years I have a marriage certificate. The title of daughter has not been brought to my attention. If there is such a person, here's hoping she is proud of her father. He was a lovely old batchelor when he got hold of me.

Several years ago we set the precedent of introducing our incoming president. I am sure you will agree with me that each year we have been able to improve on appearance and personality, and we feel that this yer we are especially fortunate in having Mrs. Hightower as our incoming president for next year. I am sure you will agree with me that she is not only easy to look at but lovely to know.

MRS. C. C. HIGHTOWER (Hattiesburg): Thank you, Mrs. Williams, and Dr. Wall. I do not know when I have had such and introduction. I am sure I have never had one like this in my limited speech making.

Mr. Chairman and Members of the Mississippi State Medical Association:

We, your wives, who are members of the Auxiliary to your Association wish to renew our pledge to assist in any way possible in your work during the coming year. Our aim, as you know, is to fully cooperate. First and most important, is our desire, our attempt, through our social contacts, to promote a friendly feeling within the profession and a proper sense of loyalty to the profession. Our second aim is the dissemination through the various organizations to which we as women belong, of authentic facts regarding the progress of the medical profession as endorsed by the association. We want to pledge ourselves to assist you in every way possible during the coming year.

DR. J. P. WALL (Jackson) (Speaker of the House): We want to assure you that the Medical Association will back you all and we appreciate your help.

HONORARY MEMBERS

Honorary members were elected as follows:

On nomination of the Issaquena-Sharkey-Warren Counties Medical Society: Dr. H. H. Haralson, Vicksburg, and Dr. W. H. Scudder, Mayersville.

On nomination of the Pike County Medical Society: Dr. I. E. Stennis, McComb.

Dr. Scudder, a member of the association for 47 years, thanked the association for the honor conferred.

COMMITTEE ON COMMUNITY HOSPITAL LEGISLATION

The Mississippi State Hospital Association wishes to express to this association our profound appreciation and sincerest tahnks for the splendid cooperation of the Mississippi State Medical Association. Also we wish to acknowledge with thanks the splendid help rendered to us through your committee on Community Hospital Legislation.

The Mississippi State Hospital Association memoralizes the Mississippi State Medical Association to instruct the incoming president to appoint a committee on Community Hospital Legislation in the interest of protective and constructive legislation.

Mississippi State Hospital Association,
Committee on Legislation.
By J. Gould Gardner, Chairman

On motion of Dr. Gardner, seconded by Dr. R. B. Caldwell, it was voted to request the incoming president to appoint a committee on Community Hospital Legislation.

CHAIRMEN OF SECTIONS

Medicine—Dr. L. J. Clark, Vicksburg
Surgery—Dr. J. Gould Gardner, Columbia
Hygiene and Public Health—Dr. H. C. Ricks, Jackson.
Eye, Ear, Nose and Throat—Dr. Van Dyke Hagaman, Jackson.

APPOINTMENTS

Dr. W. L. Little, President, has made the following appointments:

Committee on Isolation Hospitals: Drs. H. F. Garrison, Jackson; J. Gould Gardner, Columbia; H. C. Ricks, Jackson; W. H. Anderson, Booneville; John Darrington, Yazoo City.

Advisory Council, Woman's Auxiliary to the Mississippi State Medical Association: Dr. W. L. Little, Wesson; Dr. Joe E. Green, Laurel; Dr. Henry Boswell, Sanatorium; Dr. T. M. Dye, Clarksdale; Dr. T. J. Brown, Grenada.

VOLUNTARY HOSPITAL INSURANCE PLANS APPROACH 1,000,000 MEMBERS*

Non-profit plans for budgeting hospital bills report three-fold increase in membership and greater financial stability during past year.

Voluntary hospital insurance plans, by which workers and their families budget their hospital bills through monthly payments equal to two or three cents a day, reported an enrollment of approximately 900,000 subscribers April 1, 1937. This is to be compared with an estimated enrollment of 800,000 persons a year ago.

---

*Issued by C. Rufus Rorem, Ph.D, Director, Committee on Hospital Service, American Hospital Association, Chicago, May 12, 1937.

The membership is distributed among 75 different organizations in various parts of of the United States, including New York City, Washington, D. C., Chicago, Cleveland, Minneapolis, St. Paul, New Orleans, Sacramento, Buffalo, Rochester, N. Y., Syracuse, Newark, Dallas, Houston, as well as smaller communities in the southern and western states.

Most of the growth has occurred among non-profit free-choice plans of the type sponsored and recommended by the American Hospital Association. Thirty-three such associations have enrolled 750,000 members in 18 different states, where they are supervised and regulated by the state department of insurance or are organized under the general laws covering non-proift corporations. Plans operated by individual hospitals and private promoters and industrial enterprises report approximately 124,000 subscribers, which is essentially the same number as were enrolled twelve months previously. These figures do not include an additional 75,000 enrolled by industrial firms or labor unions exclusively for their own membership, or the various plans of contract practice or insurance covering both hospital and medical services.

During the past three years many plans have been under discussion, but not actually placed in operation. The files of the American Hospital Association contain information of at least one hundred such plans which were discontinued before they reached the stage of actually enrolling subscribers. Four single-hospital plans have been discontinued because of local professional opposition or lack of community interest. In addition, a number of privately owned plans have stopped their activities because of conflicts with insurance law requirements or difficulties of interesting prospective subscribers.

In no instance has a non-profit free-choice hospital service association been discontinued. The enrollment in these organizations is increasing from month to month, hospitals have been paid promptly for services to subscribers, and reserves have been established by initial deposit or accumulation of earnings to meet the requirements of insurance departments or sound business policy.

Voluntary hospital care insurance is not a panacea for the problems of hospital finance; moreover, hospital insurance is not a complete answer to the public's request for a plan of budgeting the costs of sickness. Experience has demonstrated, however, that hospital service plans which are established with primary emphasis upon public welfare have also been economically sound in their relations with subscribers and hospitals.

During the year 1934, the insurance laws of the State of New York were amended to permit the formation of non-profit hospital service corporations, to be governed by special regulations of the departments of insurance and social welfare. The following year, similar acts were enacted by the legislatures of Alabama, California, and Illinois, and in 1937, permissive legislation has been passed in the states of Georgia and Maryland which place non-profit hospital service corporations directly under the supervision of the departments of insurance.

The American Hospital Association does not recommend the establishment of hospital service associations unless they meet the standards of the Council and trustees of the association established in February 1933. These standards are: emphasis on public welfare; non-profit sponsorship and control; free-choice of hospital by subscribers; limitations of benefits to hospital service; representation of community and professional interests; economic and actuarial soundness; dignified promotion and management.

The largest membership has been reached by Associated Hospital Service, Incorporated, of New York, which enrolled more than 350,000 subscribers during the first two years of its life ended May 1, 1937. Next largest is the plan conducted in Minneapolis and St. Paul which reports 85,000 after four years' activity. Other growing plans have enrollments as follows: Rochester, N. Y., 65,000; Cleveland, 50,000; New Orleans, 40,000; Washington, D. C., 35,000; Durham, N. C., 26,000; Chapel Hill, N. C., 23,000; Newark, N. J., 20,000; Sacramento, California, 16,000.

DIRECTORY AND CALENDAR OF MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-First Annual Session and Thirty-fifth Annual Session of the House of Delegates, Jackson, April 26, 27, 28, 1938.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p.m.

Amite County Medical Society: W. R. Stewart, Osyka, president; D. H. Thornhill, Crosby, secretary. Meets with Wilkinson County Medical Society, Centerville.

Central Medical Society: L. W. Long, Jackson, president; Gayden Ward, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m., except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. E. Powell, Charleston, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clarke-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: I. W. Barrett, Clarksdale, president; N. C. Knight, Clarksdale, secretary. Meets second Wednesday each month, Clarksdale Hospital, Clarksdale, 1:30 p. m.

Delta Medical Society: E. T. White, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

Desoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, Rt. 4, Memphis, secretary. Meets first Monday of January, April, July, October, Hernando, 10 a. m.

East Mississippi Medical Society: T. G. Cleveland, Meridian, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: L. Costley, Meadville, secretary.

Hancock County Medical Society: A. P. Smith, Bay St. Louis, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: G. C. Jarratt, Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday, each month, Mississippi State Charity Hospital, Vicksburg, 7 p.m.

Jackson County Medical Society: W. J. Weatherford, Pascagoula, president; R. G. Lander, Pascagoula, secretary. Meets second Thursday of March, June, September, Pascagoula, 7 p. m.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Marshall County Medical Society: C. R. Senter, Byhalia, president; Herbert Phillips, Holly Springs, secretary. Meets second Thursday, each month, alternating between Byhalia and Holly Springs.

Newton County Medical Society: V. L. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: R. G. Grant, Holly Springs, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: L. L. McDougal, Booneville, president; A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September and December.

Pike County Medical Society: J. L. Bauer, McComb, president; Elise Rutledge, McComb, secretary. Meets first Thursday, each month, McComb, 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R.F.D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Stone County Medical Society: Earl W. Green, Wiggins, secretary. Meets with Harrison-Stone-Hancock Counties Medical Society.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday, each month, Senatobia.

Tri-County Medical Society: D. T. Langston, New Hebron, president; R. B. Zeller, Hazlehurst, secretary. Meets March, Copiah - Lincoln Junior College, Wesson; June, Walthal Hotel, Tylertown; September 14, Riverside Hotel, Monticello; December 14, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president; H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: E. M. Butler, Centreville, secretary. Meets with Amite County Medical Society, Centreville.

Winona District Medical Society: P. B. Brumby, Lexington, secretary.

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION

Ninth Annual Session, Jackson, April 25, 1938

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary, Meridian: First Friday, each month 6:00 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital, Oxford: Third Wednesday each month, 7:30 p. m.

Charleston Hospital: First Thursday, each month, 7 p. m.

Clarksdale Hospital: Second Wednesday. each month, 12 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p.m.

George C. Hixon Memorial Hospital, Electric Mills: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium, Amory: Third Thursday, each month, 8:00 p. m.

Greenwood-Leflore Hospital: First Thursday, each month, 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital, Lexington: Second Thursday, each month, 7:00 p. m.

Houston Hospital:Fourth Friday, each month, 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p. m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p. m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 7:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.

Magee General Hospital: Twenty-fifth, each month, 6:00 p. m.

Mayes Hospital, New Albany: First Monday, each month, 2:30 p.m.

McComb City Hospital: First Tuesday each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday, each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Hospital: Second Thursday, each month.

Northeast Mississippi Hospital, Booneville: First Monday each month, 7:00 p. m.

Oktibbeha Hospital, West Point: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veterans' Hospital, Gulfport: Every Monday, Tuesday, Wednesday and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month, 7:30 p. m.

*Winona Infirmary*s First Thursday, each month, 7:30 p. m.

CERTIFICATES OF APPROVAL

At the recent meeting of the Mississippi State Hospital Association, certificates of approval for the year of 1937, on recommendation of the Committee on Minimum Standards, were granted to the following institutional members of the association, which are complying with the minimum standards of the association:

Aberdeen Hospital, Aberdeen
Anderson Infirmary, Meridian
Biloxi Hospital, Biloxi
Bramlett Hospital, Oxford
Charleston Hospital, Charleston
Columbia Clinic Hospital, Columbia
Columbus Hospital, Columbus
Corinth Hospital, Corinth
Field Memorial Hospital, Centreville
Fite Hospital, Columbus
Gilmore Sanitarium, Amory
Greenwood Leflore Hospital, Greenwood
Grenada Hospital, Grenada
George C. Hixon Memorial Hospital, Electric Mills
Holmes County Community Hospital, Lexington.
Houston Hospital, Houston
Ivy Hospital, West Point
Jackson Infirmary, Jackson
King's Daughters Hospital, Brookhaven
King's Daughters Hospital, Greenville
King's Daughters Hospital, Gulfport
King's Daughters Hospital, Rosedale
King's Daughters Hospital, Yazoo City
Lumberton City Hospital, Lumberton
McComb City Hospital, McComb
McComb Infirmary, McComb

McRae Hospital, Corinth
Macon Hospital, Macon
Magee General Hospital, Magee
Mayes Hospital, New Albany
Meridian Sanatorium, Meridian
Mississippi Baptist Hospital, Jackson
Natchez Sanatorium, Natchez
New Albany Hospital and Clinic, New Albany
Newton Infirmary, Newton
Northeast Mississippi Hospital, Booneville
Oktibbeha Hospital, Starkville
Oxford Hospital, Oxford
Ponotoc Clinic, Pontotoc
Dr. F. G. Riley's Hospital, Meridian
Rush's Infirmary, Meridian
South Mississippi Infirmary, Hattiesburg
Tupelo Hospital, Tupelo
Tylertown Hospital, Tylertown
Vicksburg Infirmary, Vicksburg
Vicksburg Sanitarium, Vicksburg
Water Valley Hospital, Water Valley ,
Winona Infirmary, Winona.

MINIMUM STANDARDS OF THE MISSISSIPPI STATE HOSPITAL ASSOCIATION

1. All hospitals shall have modern and efficient buildings which are separate and apart from any other building and operated solely for hospital purposes. Physicians and surgeons privileged to practice in the member hospital shall be organized as a definite group or staff; the word "staff" to include all doctors who practice in the hospital.

2. Membership upon the staff shall be restricted to physicians and surgeons who are (a) full graduates of medicine in this state, and members of their respective county medical societies and of the Mississippi State Medical Association; (b) competent in their respective fields; and, (c) worthy in character and in matters of professional ethics; in this latter connection the practice of the division of fees, under any guise whatever, shall be prohibited.

3. The staff shall initiate and, with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; all doctors shall read and sign the rules and regulations upon election to the staff: these rules, regultions, and policies shall specifically provide:

(a) That staff meetings be held at least once each month.

(b) That the staff review and analyze at the monthly staff meetings their clinical experiences in the various departments of the hospital, such as medicine, surgery, obstetrics, and the other specialties; the clinical records of patients, free and pay, to be the basis for such review and analysis.

4. Accurate and complete records shall be written for all patients and filed in an accessible manner in the hospital—a case record to include at least: identification data; complaint; personal and family history; history of present illness; physical examination; special examinations, such as consultations, clinical laboratory, x-ray, nd other examinations; provisional or working diagnosis; medical and surgical treatment; gross pathological findings; microscopical pathological findings, when indicated and possible; progress notes; final diagnosis; condition on discharge; and in case of death, autopsy findings when possible to obtain.

5. Diagnostic and therapeutic facilities under competent supervision shall be available for the study, diagnosis and treatment of patients, these to include at least (a) clinical laboratory, and, (b) an x-ray department.

MISSISSIPPI STATE HOSPITAL ASSOCIATION—STANDING COMMITTEES

1937-1938

Constitution and Rules: J. Rice Williams, M. D., Houston Hospital, Houston, chairman; T. M. Dye, M.D., Clarksdale; W. H. Frizell, M.D., King's Daughters Hospital, Brookhaven.

Legislation: V. B. Philpot, M. D., Houston Hospital, Houston, chairman; W. Jeff Anderson, M. D., Anderson's Infirmary, Meridian; E. S. Bramlett, M. D., Bramlett Hospital, Oxford; R. B. Caldwell, M. D., Baldwyn Hospital, Baldwyn; W. W. Diamond, M. D., Magee General Hospital, Magee; J. W. D. Dicks, M. D., Natchez Sanatorium, Natchez; S. E. Eason, M. D., New Albany Hospital, New Albany; R. J. Field, M. D., Field Memorial Hospital, Centreville; Charles LeBaron, M. D., Gulfport; L. W. Long, M. D., Mississippi Baptist Hospital, Jackson; M. H. McRae, M. D., McRae Hospital, Corinth; V. B. Martin, M.D., Martin Sanatorium, Picayune; J. W. Moody, M.D., Charleston Hospital Charleston; D. G. Rafferty, M.D., Pass Christian; E. R. Nobles, M.D., Rosedale; Robert W. Smith, M.D., King's Daughters Hospital, Canton; C. F. Theobold, Biloxi Hospital, Biloxi; C. C. Whittington, King's Daughters Hospital, Greenville; E. LeRoy Wilkins, M.D., Clarksdale.

Membership: W. H. Brandon, M.D., Clarksdale, chairman; G. E. Adkins, M.D., Jackson; E. C. Parker, M.D., Gulfport.

Special Committees—1937-1938

Charity Hospitals: E. H. Jones, M.D., Vicksburg, chairman; Maude E. Varnado, R.N., Laurel General Hospital, Laurel; N. C. Womack, M.D., Jackson Infirmary, Jackson; K. T. Klein, M.D., Meridian Sanitarium, Meridian; Louis Magee, M.D., Natchez Charity Hospital, Natchez.

Mental Hospitals: C. D. Mitchell, M. D., Mississippi State Hospital, Whitfield, chairman; J. S. Hickman, M. D., Mississippi State Hospital, Meridian; F. G. Riley, M. D.. Dr. F. G. Riley's Hospital, Meridian.

Public and Community Relations: Henry Boswell, M.D., Sanatorium, chairman; G. A. Brown, M.D., Water Valley Hospital, Water Valley; R. M. Flynt, M.D., Newton Infirmary, Newton; H. N. Mayes, M.D., Mayes Hospital, New Albany; Velma Stewart, R.N., Tupelo Hospital, Tupelo.

Minimum Standards: H. Lowry Rush, M.D. Rush's Infirmary, Meridian, chairman; J. C. Culley, M.D., Oxford Hospital, Oxford; M. Q. Ewing, M.D., Gilmore Sanitarium, Amory; Mrs. Karenza Gilfoy, Mississippi Baptist Hospital, Jackson; A. B. Harvey, M.D., Tylertown Hospital, Tylertown; J. W. Primrose, M.D., Clarksdale; Mary H. Trigg, R.N., Greenwood Leflore Hospital, Greenwood.

Nurses and Nursing: Mary E. Dorsey, R.N. King's Daughters Hospital, Greenville; chairman; S. E. Field, M.D., Field Memorial Hospital, Centreville; I. C. Knox, M.D., Vicksburg; J. Ogden, Methodist Hospital, Hattiesburg; Mrs. Sam Owen, R.N., George C. Hixon Memorial Hospital, Electric Mills; W. C. Pool, M.D. Cary.

Publication: Leon S. Lippincott, M.D., Vicksburg, chairman; J. M. Acker, Jr., M.D., Aberdeen Hospital, Aberdeen; F. J. Underwood, M.D., Jackson.

Fixed Periodic Payments for Hospital Services: H. A. Gamble, M.D., Greenville, chairman; G. Lamar Arrington, M.D., Meridian; W. W. Crawford, M.D., South Mississippi Infirmary, Hattiesburg; John Darrington, M.D., King's Daughters Hospital, Yazoo City; B. B. Martin, M.D., Vicksburg Infirmary, Vicksburg.

Hospital Taxation: B. B. Martin, Jr., M.D., Vicksburg Infirmary, Vicksburg, chairman; C. H. Harrison, M.D., Philadelphia Hospital, Philadelphia; J. R. Hill, M.D., Corinth; William P. Warfield, M.D., Clarksdale; Thomas Wolford, M.D., Columbus Hospital, Columbus.

National Hospital Day: F. B. Long, M.D., Oktibbeha Hospital, Starkville, chairman; I. P. Carr, M.D., Clarksdale; F. S. Hill, M.D., Grenada Hospital, Grenada; F. P. Ivy, Ivy Hospital, West Point; T. E. Ross, M.D., Methodist Hospital, Hattiesburg.

Hospital Records: W. H. Parsons, M.D., Vicksburg Hospital, Vicksburg, chairman; Charles E. Catchings, M.D., Woodville; P. L. Fite, Fite Hospital, Columbus; J. E. Powell, M.D., Charleston; Julia Stout, R.N., King's Daughter's Hospital, Rosedale; W. H. Sutherland, M.D., Northeast Mississippi Hospital, Booneville.

Hospital Accounting: G. D. Stanley, King's Daughters Hospital, Greenville, chairman; W. W. Hall, Jr., M.D., Shelby; Mrs. J. Oridge, R.N., Holmes County Community Hospital, Lexington; T. H. Rayburn, M.D., Pontotoc; Sallie B. Taylor, R.N. King's Daughters Hospital, Gulfport.

Hospital Staff Rules and Regulations: Gilruth Darrington, M.D., King's Daughters Hospital, Yazoo City, chairman; E. W. Holmes, M.D., Winona Infirmary, Winona; J. L. Levy, M.D., Clarksdale; L. B. McCarthy, M.D., Jackson; L. B. Morris, M.D., Macon Hospital, Macon.

Approved Merchandisers: (Southern Hospital) J. K. Avent, M.D., Grenada Hospital, Grenada, chairman; L. W. Brock, M.D., McComb Infirmary, McComb; Ashton Toomer, Houston; B. T. Whitfield, Corinth Hospital, Corinth.

Child Health Day: W. H. Anderson, M.D., Booneville, chairman; L. B. Austin, M.D., Rosedale; Mrs. L. D. Dickerson, McComb City Hospital, McComb; T. G. Hughes, M.D., Clarksdale; D. B. Stevenson, M.D., City Hospital, Lumberton.

MISSISSIPPI STATE BOARD OF HEALTH

The May radio program was introduced by an interesting broadcast featuring Governor Hugh White and Dr. Felix J. Underwood, both speaking on the subject of "Child Health." Dr. H. B. Cottrell, director of Sunflower County Health Department, Indianola, spoke on the timely subject "Mother's Day—Guard Her Health." Eva Moore Adams, supervisor of Health Education, gave an abstract of Luther Burbank's "The Most Sensitive Plant in the World." Dr. Felix J. Underwood talked on "The Dangers of Quackery." The last talk of the month was given by Miss Mary Stennis, state WPA nutritionist, on "Health —Over the Garden Wall."

The following public health nurses have been placed in the counties named: Miss Minnie Merle Shirley, Copiah; Miss Virginia Walker, Lafayette; Miss Peggy I. Stewart, Adams; Miss Ruby Dell Young, Jones; Mrs. Edna Edwards, Madison.

Eva Moore Adams, supervisor of health education and recently named chairman of health education for the Mississippi Parent-Teacher Association, attended the National Congress of Parents and Teachers in Richmond, Va. Among nationally known visitors at the Congress was Dr. Thomas Parran, Surgeon General, U. S. Public Health Service, Washington.

Jackson, June 5, 1937

Felix J. Underwood,
Executive Officer.

MISSISSIPPI STATE PUBLIC HEALTH ASSOCIATION

Celebrating the sixtieth anniversary of the State Board of Health, over 300 health workers met in Jackson, May 27-28, to organize the Mississippi Public Health Association. After the adoption of constitution and by-laws, the group unanimously elected Dr. Felix J. Underwood its first president.

Also by unanimous vote, H. A. Kroeze was chosen president-elect and Dr. J. A. Milne was appointed to serve as secretary-treasurer. Serving with these officers on the executive committee will be the chairmen of different sections of health workers. They are as follows: Administrative Section, Dr.. H. C. Ricks, Jackson; Dental Hygienists, Miss Elizabeth Kimmons,, McComb; Clerical Section, Miss Jessie Lynn Ruff, Jackson; Sanitation Section, Lorenzo McCaleb, Clarksdale; Public Health Nursing, Mrs. Syd V. Schneidau, Brookhaven; Laboratory Section, Mrs. R. C. Griffin, Amory.

Recent visitors to the State Board of Health for the organization meeting of the Mississippi Public Health Ass'n. were Dr. Frances C. Rothert, regional consultant for the Federal Children's Bureau, New Orleans; Miss Ruth Cushman, R.N., Miss Donna Pearce, R.N., regional consultants, Public Health Nursing, U. S. Public Health Service, New Orleans; Miss Emma Maurin, R.N., Director, Public Health Nursing Division, Louisiana State Board of Health, New Orleans; Dr. W. K. Sharp, Jr., regional consultant, U. S. Public Health Service, New Orleans; J. W. Evans, assistant supervisor, Adult Education, TVA, Iuka, Mississippi; Dr. Carlos Vassaux, Gautemala; Miss Carolina Randolph, associate, Division of Public Health Studies, Commonwealth Fund, New York; Dr. and Mrs. J. M. Barnett, New Orleans, La.

Opening the Administrative Section of the Mississippi Public Health Association, Dr. Felix J. Underwood reported on the Surgeon General's Conference at Washington. Federal-state cooperation in public health is greatly strengthened, Dr. Underwood told the health officers. The Surgeon General's Conference recommends facilities for instruction of all full-time public health personnel, stabilization of the schools at present engaged in training personnel for public health service, and continued rigid eligibility and entrance requirements.

Health officers also heard Dr. F. M. Smith, Vicksburg, Dr. B. D. Blackwelder, Hattiesburg, Miss Louise Williams, State Board of Health librarian, J. W. Evans, assistant supervisor, General Adult Education, TVA, Dr. D. V. Galloway, Meridian, Dr. G. L. Biles, Sumner, Dr. George E. Riley, supervisor, malaria control, Dr. R. N. Whitfield, director, vital statistics, and Eva Moore Adams, supervisor of health education.

The most exciting and rewarded fight in the world is that to prevent diseases and save lives, according to Dr. H. A. Gant, of Columbia, Tennessee, featured speaker at the meeting of the Mississippi Public Health Association. A native Mississippian and president of the State Board of Health in 1900, Dr. Gant was a leader in the fight against yellow fever in 1898 and advocated the theory of mosquito transmission.

Called to Orwood to see several patients suffering with yellow fever in 1898, Dr. Gant found they had been visiting at nearby Taylor where a yellow fever victim had died. He next discovered that the bereaved family had received a bunch of bananas and he traced these to the tropics.

"I came within a gnat's heel of being famous to then," he chuckled, "and it does seem that we were the stupidest of doctors not to see that the mosquitoes were in the banana bunch, but we were saturated with the idea of fomites."

With Dr. Gant at the meeting here was Mrs. Hattie McClelland, his secretary almost 40 years ago.

Mrs. McClelland was the only secretarial worker in the State Board of Health at the time. Speaking from an outsider's point of view, Dr. Gant commented with pride on the march of public health in his native state.

Over 400 persons overflowed the Edwards Hotel banquet hall for the Public Health Association's gala dinner-dance. Clayton Rand, editor of the Gulf Coast Guide and president of the National Editorial Association, was speaker of the occasion, advocating sterilization of morons and social misfits.

"The pioneering strain is dying out," he declared. "We've kept alive weaker individuals and set scrubs aloose in the world through medical advances. There's only one way to improve our nation, and that's by improving the breed."

He especially commended public health's

care of motherhood, saying that a people can rise no higher than its mothers. Picturing strides in medicine and surgery, he declared that health work constitutes the most important branch in state government.

Dr. Felix J. Underwood was toastmaster for the banquet.

Jackson, Felix J. Underwood,
June 5, 1937. President.

COAHOMA COUNTY MEDICAL SOCIETY
and
CLARKSDALE HOSPITAL MEDICAL STAFF

The Coahoma County Medical Society and Clarksdale Hospital Medical Staff met in the downstairs dining room of the Alcazar Hotel at 12 o'clock, Wednesday, May 19. Immediately after lunch the meeting was called to order by the president, Dr. I. W. Barrett. Dr. N. C. Knight, the regular secretary, being absent, Dr. E. LeRoy Wilkins acted as secretary. The minutes of the previous meeting were approved as read.

The secretary announced that Mr. Charlie Harlowe apologized for refusing to let the Clarksdale and Six Counties Medical Society use the Elks Club for its meeting place two years ago and invited the Society to use the Elks Club building whenever it desired.

The question of a summer recess for the Society was discussed generally and it was agreed that same would be taken during July and August, the next meeting after June to be held at the regular meeting time in September. It was further agreed that the June meeting would be held the first of June, instead of the regular time.

A general discussion of the Clarksdale Hospital meeting the requirements for a standard hospital, to be recognized by the State Hospital Commission, was then entered into but no definite conclusions were reached.

The allotted time being taken up by the above matters the scientific program was postponed until the next meeting and the Society adjourned.

Clarksdale, N. C. Knight,
May 26, 1937 —by E. LeRoy Wilkins,
Acting Secretary.

COAST COUNTIES MEDICAL SOCIETY

The first meeting of the newly organized Coast Counties Medical Society was held at the Community House in Pascagoula on the night of June 2. Dr. E. L. Bolton, Biloxi, read a very interesting paper on the use of prontosil. Dr. J. N. Lockard presented a case of hemihypertrophy in the person of a three-year-old negro girl.

After the meeting refreshments were served by a committee of local physicians assisted by their wives. The next meeting of the Society will be in Biloxi.

Pascagoula, R. G. Lander
June 9, 1937

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

A regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, June 8, and after a supper, served at 7 p.m., was called to order by the president, Dr. G. C. Jarratt, with nineteen members and five guests present.

Papers and discussions:

Subject: *Obstetrics and Gynecology.*— Dr. R. A. Street, Jr., Vicksburg, Chairman.

1. Postpartum Hemorrhage.—Dr. Walter A. Ruch, Memphis, Tenn.

Discussed by Drs. S. W. Johnston and R. A. Street, Jr., Dr. Ruch closed.

2. Motion Pictures—Ergotrate.—Courtesy of Eli Lilly and Company.

3. Lymphogranuloma Inguinale.—Dr. John H. Dent, Vicksburg.

Discussed by Drs. B. B. Martin, Jr. and R. A. Street, Jr. Dr. Dent closed.

4. Case Report—Staff of Mississippi State Charity Hospital: Toxemia of Pregnancy—Caesarean Section; Recovery.—Dr. R. A. Street, Jr., Vicksburg.

Discussed by Dr. Ruch.

Dr. Jarratt made a report of the meeting of the Mississippi State Medical Association at Meridian.

Dr. E. H. Jones presented a report of the out-patient clinic operated by this society for the month of May and showed pictures of the observance of National Hospital Day at the Mississippi State Charity Hospital.

The next meeting of the Society will be held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, July 13. The subject will be Pediatrics and the committee in charge consists of Drs. John H. Dent, chairman, G. C. Jarratt, W. P. Robert and H. B. Wilson.

MARSHALL COUNTY MEDICAL SOCIETY

The physicians of Marshall County, although somewhat tardy, wish to announce the birth of the Marshall County Medical Society. This husky "infant" was born in August, 1936. The officers are: president, C. R. Senter, Byhalia; vice-president, Ira B. Seale, Holly

Springs; and secretary-treasurer, Herbert Phillips, Holly Springs. The Society meets on the second Thursday of each month; alternating between Byhalia and Holly Springs.

The programs of the Society are planned to contain two papers at each meeting; one each from a Society member and a guest essayist. Attempts are made to cover the whole field of medicine from the standpoint of the general practitioner, and to date the Society has had as guest essayists: medicine, Lyle Motley and William Colbert; urology, Thomas Moore and H. K. Turley; surgery (tuberculosis), Duane Carr; obstetrics, James Reinberger; and ophthalmology, Billy S. Guyton. Plans for future programs call for essays on the other branches of medicine. The programs of the Marshall County Medical Society have proven informative and entertaining. The essays have been highly practical. Any physician, especially those in neighboring counties, who care to attend the meetings of the Society are cordially invited to do so.

Holly Springs, Yours truly,
May 25, 1937. V. B. Harrison.

TALLAHATCHIE COUNTY MEDICAL SOCIETY

The Tallahatchie County Medical Society met Thursday evening at 7:30 at Tutwiler. There were eleven members present and two dentists, Dr. Townsend, of Webb, and Dr. Pate, of Tutwiler. A sumptuous meal was served at the Backstrom Hotel consisting of duck and all the good things which go to make a real feed.

Dr. Jimmie Biles gave an account of his trip around the world which was enjoyed by all present. He told of the many clinics and hospitals visited in different countries and related how the technique employed by the surgeons and hospitals differed from that of the United States. He gave many interesting accounts of places of interest visited and showed many pictures of the different places of interest visited thruoghout his trip. He was away about ten months.

The Society will meet the first Thursday of July in Charleston where we plan to have the meeting in the afternoon on one of the lakes where fish will be served.

Charleston, J. W. Moody,
June 11, 1937.

TRI-COUNTY MEDICAL SOCIETY

A quarterly meeting of the Tri-County Medical Society was held at Tylertown, June 8, beginning with dinner served at 12:30 p.m.

The meeting was devoted to a symposium on Drugs or Methods of Treatment, New to Me, That I Have Used During the Past Year, and was participated in by Drs. A. B. Harvey, Tylertown; O. N. Arrington, Brookhaven; J. J. Pittman, Tylertown; J. R. Markette, Brookhaven; S. B. Waller, Silver Creek.

Dr. Hugh T. Beacham, New Orleans, La., presented a paper on Prostatism.

Hazlehurst, R. B. Zeller,
June 3, 1937. Secretary

DESOTO COUNTY

The meeting in Meridian was pleasing in every respect; the program was good as was the attendance and service. Many old friends were seen and new ones made and we were glad that we had the opportunity of attending this fine meeting. Dr. A. L. Emerson, Hernando, and the editor were the representatives from this county.

Dr. A. J. Brown, Way, some twenty miles north of Jackson, had me as an appreciative passenger in his car from Meridian to his hospital and sanatorium where I was most hospitably entertained; I drank freely of these remedial waters and many satisfied patients were on hand to attest of their beneficial value.

On June 18, 1906, 41 years after the close of the Civil War, the postmaster of Macon, received a letter of which a copy is forthwith:

Dear Sir:

I hope that when you shall have completed the reading of this letter that you may not consider it an unpardonable liberty. Yesterdy I was presented with a work on surgery, which bears date of 1846, by the widow of a foreign surgeon in the federal army. This work has on its front cover the following writing: "H. A. Minor, Surgeon 9th Alabama Reg't., Ala. Vols., Wilcox Brigade, Anderson Division, A. P. Hill's Corps. A. N. Va. Home address: Macon, Noxubee Co., Miss." There is also written by a different hand, "Captured near Appomattox Court House April 8th, 1865." It is hardly probable that the old Doctor is now alive as most surgeons were somewhat along in years naturally at enlistment, but if he should be so I would consider it a favor if you would forward this letter to him, if not and you know of any member of the family living please hand or send the letter to them. The work is a large one and is entitled: Pancost's Operative Surgery.

Again asking your forgiveness for the

liberty, I am,

Yours very truly,
A. S. Helton.

P. S. In this day of graft, probably it would be well to state there is no commercialism in this matter, but a desire to place in the hands of those who might most appreciate what might be regarded as a sacred momento. A.S.H.

Washington, D. C.
June 12th, 1906

Father, who lived to be 86 years old and died in 1920, wrote Dr. Helton most appreciatively. I have this valuable book before me now; it is well preserved and the illustrations are marvelous. The cover is as follows:

A TREATISE
On
OPERATIVE SURGERY
Comprimising
A DESCRIPTION
of the
Various Processes of the Art
Including
ALL THE NEW OPERATIONS;
Exhibiting
The State of Surgical Science in its Present Advanced Condition with eighty plates,

Containing Four Hundred and Eighty-Six Illustrations. Second Edition, Revised and Enlarged.

By JOSEPH PANCOAST, M.D.
Professor of General, Descriptive and Surgical Anatomy in Jefferson Medical College, Philadelphia; Lecturere on Clinical Surgery, etc, etc.
Philadelphia: Carey and Hart, 126 Chestnut Street, for G. N. Loomis, 1846.

The editor's son, Lancelot, Jr., leaves today from New York for a two months' trip to Europe. He is with a party of some twenty other boys with a professor who will be instructor, guide, and interpreter, etc.

Route 4, Memphis, Tenn. L. L. Minor,
June 10, 1937. County Editor.

GRENADA COUNTY

Attending the State Medical Association meeting in Meridian this month were Dr. and Mrs. J. K. Avent, Dr. F. S. Hill, Dr. S. B. Caruthers and Dr. T. J. Brown. Miss Irene Hendrix attended the State Hospital Association meeting.

Dr. and Mrs. J. K. Avent attended the reunion of the 1917 pharmacy class at Ole Miss, Sunday, May 30. This was the first reunion to be held of this class.

Dr. J. K. Avent will deliver the commencement address at Gilmore Sanitarium, Amory, June 4.

Grenada, J. K. Avent,
May 31, 1937. County Editor.

HUMPHREYS COUNTY

Representing Humphreys County at the first annual meeting of the Mississippi State Public Health Association were Dr. J. W. Barkley and his staff.

Dr. B. W. Barton, of San Angelo, Texas, has been visiting his daughter, Mrs. Mary Ingram, Belzoni.

Among those attending the Rotary banquet at Leroy Percy Park were Dr. and Mrs. T. J. Barkley, Isola.

Dr. Gordon Keith Rogers, of New Orleans, is at home for a few days following his graduation May 31, at Tulane School of Medicine. He will serve his interneship at Charity Hospital, New Orleans.

Dr. and Mrs. W. S. Taylor, Isola, have been visiting relatives in Winona.

Dr. Robert Jackson made a business trip to Memphis last month.

Among those attending the State Medical Meeting in Meridian were Dr. and Mrs. T. J. Barkley, Isola. They were the only attendants from our County.

Miss Irene Waddlington, daughter of Dr. and Mrs. J. A. Waddlington, Belzoni, is studying art in New York.

Chosen as the 1937 American Mother by the Golden Rule Foundation was Mrs. Carl Raymond Gray. She is the mother of Dr. Howard Gray, cancer specialist at the Mayo Clinic in Rochester, Minn. He is now doing research work for the clinic in Europe. Mrs. Gray is the sister-in-law of our own Mrs. John C. Bell, wife of Dr. Bell, of Belzoni.

Belzoni, J. W. Jackson,
June 8, 1937 County Editor.

LEFLORE COUNTY

The Physicians and Surgeons Exchange, telephone 1424, with Miss May Catledge in charge, has been organized here for the benefit of local doctors.

Dr. Gwin Mounger, who has been associated with Dr. C. W. Mattingly, New Orleans, is in Greenwood, and will locate here, or at Yazoo City, in the near future.

Dr. W. D. Hickerson, field clinician of the Bureau of Tuberculosis Control of the State Board of Health, held a chest clinic in Greenwood the first week in May.

At the staff meeting of the Greenwood Leflore Hospital, May 6, Drs. Crawford, Gillespie, and F. M. Sandifer, Jr., reported cases. Drs. Gwin Mounger, J. F. Lucas, and R. E. Wilson were welcomed as new members.

Dr. George J. Mancill, Indianola, passed through Greenwood and visited our hospital Thursday night, May 6.

Drs. J. C. Adams and S. L. Brister, Jr., attended the golf tournament in Yazoo City, May 6.

Dr. and Mrs. L. F. Ferguson returned from Louisville, Ky., May 7, where they saw Rev. Edwin Hewlett get his master's degree. He is their nephew, and one of our boys.

Dr. F. M. Sandifer, Jr., went to New Orleans, May 8, and then on to Meridian to attend the meeting of the State Association. The physicians from Greenwood to attend the meeting were: Dr. Ruth Dean, State Pediatric Society; Dr. and Mrs. R. E. Wilson; Dr. and Mrs. R. B. Yates, Dr. and Mrs. J. A. Crawford; Drs. G. Y. Gillespie, Jr., S. L. Brister, Jr., and J. C. Adams.

Dr. and Mrs. J. W. Lucas, Moorhead, visited in the home of their son, Dr. J. F. Lucas, Greenwood, May 15.

Drs. R. E. Wilson, R. B. Yates, and W. B. Dickins attended the Inter-City Rotary banquet at Inverness, Monday night, May 17.

Dr. Theodore Austin, Medical Corps, U. S. Navy, Washington, D. C., visited relatives in Greenwood, May 18, on his way to California, where he will sail for China.

Dr. and Mrs. I. B. Bright, Greenwood, left for New York May 19 to spend a month, where the doctor will do postgraduate work at Columbia University.

Dr. and Mrs. Tate Carl, Memphis, attended the wedding of their sister, Miss Alberta, to Dr. Robert Thomas Daniel, of Fort Worth, Texas, which took place in Greenwood, at the home of Mr. and Mrs. A. S. Carl, May 21.

Dr. L. B. Otken visited in Jackson May 23, returning to Greenwood May 24.

Dr. H. C. Ricks, director, Communicable Disease Control, State Board of Health, was in Greenwood on official business May 24.

Dr. W. M. Duke, 56, Sunny Side, Leflore County, died at his home there May 20, and was buried in Greenwood, May 27. Dr. Duke had been in active practice 35 years, until the last few months of his life. He leaves a wife, three cildren, Mrs. John Hinman, Greenwood, Miss Mae, Memphis, and W. M. Duke, Jr.

Dr. B. H. Higdon, Sunflower, visited in Greenwood on May 27.

Dr. O. H. Beck, Greenville, attended the golf tournament here May 28.

Dr. F. M. Sandifer spent the last week of May fishing on the Gulf Coast.

Greenwood, W. B. Dickins,
June 2, 1937 County Editor.

PANOLA COUNTY

Dr. J. Q. Fountain, Sardis, has spent some time in the Baptist Hospital, Memphis, and it will be several weeks before he will be able to resume practice.

Dr. D. W. Whitaker, Sardis, was recently called to his home in Missouri on account of illness and death of his mother.

Dr. Elwood E. Baird, Battle Creek, Mich., and a graduate of Northwestern University, has formed a partnership with Dr. J. M. Anderson, Sardis.

Dr. A. J. McIlwain, Batesville, has recently completed his course at Tulane University under the Commonwealth Fund.

The registrars of vital statistics for the northern part of the state will meet in Batesville, June 3.

Dr. H. R. Elliot, Batesville, has recently undergone another serious operation at the Baptist Hospital in Memphis. His many friends are delighted that he is recovering from the operation.

Dr. Elliot, brother of Mr. Jake Elliot, Oxford, died suddenly while the doctor was critically ill in Memphis.

Batesville, G. H. Wood,
June 2, 1937. County Editor.

PRENTISS COUNTY

Prentiss County doctors met in regular monthly session the 7th inst., with good attendance. They went on record unanimously, condemning all hospital insurance not fully endorsed by the State Medical Association and the State Hospital Association.

Dr. and Mrs. W. H. Sutherland attended the meeting of the State Medical Association at Meridian, and then motored to Old Mexico for few days.

Dr. and Mrs. W. H. Anderson and Drs. S. L. Pharr and L. L. McDougal, Sr., attended the State Medical meeting. They report the best meeting in its history.

Dr. W. H. Anderson says he was recently initiated into the "Calculus Club," passed a small stone from his left kidney. The writer became a charter member of that club 20 years ago. We prefer to be suspended for the non-payment dues.

Smith McDougal, son of Dr. and Mrs. L. L. McDougal, Sr., has gone to Alaska to join his uncle, T. S. McDougal, who has been there in the mining business since 1904.

Several of our doctors are contemplating attending the meeting of the Northeast Mississippi Thirteen Counties Medical Society at Houston next Tuesday, 15th.

Booneville, L. L. McDougal, Sr.
June 9, 1937. County Editor.

SUNFLOWER COUNTY

Dr. J. A. Clark, Ruleville, has gone to Nice, France, for the Rotary International Convention.

Dr. Robert Strong, professor of pediatrics, Tulane University, spent May 24, 25 and 26 in Indianola giving a course of post-graduate lectures to the physicians of Sunflower, Humphreys, and Washington Counties. Twenty-three doctors attended the lectures.

Dr. J. S. McNeal, formerly of Crossville, is now practicing in Moorhead.

Three physicians, Dr. S. D. Newell, Inverness; Dr. George J. Mancill, Indianola; and Dr. J. W. Lusk, Ruleville, recently returned from a course of post-graduate study at Tulane University.

Indianola, H. B. Cottrell,
June 5, 1937. County Editor.

TALLAHATCHIE COUNTY

The writer attended the meetings of the State Hospital and Medical Associations which convened in Meridian, May 10. The meetings were very interesting and profitable. The only thing I dislike about our associations is that there is too much politics injected into the discussions. Too much time consumed wrangling and arguing over matters which are of very little interest except to some who are afraid the other fellow will get the credit for something which he should have. There is just too much "BULL" and none of it sticks or amounts to anything.

Dr. J. E. Powell and wife and Dr. Moody and wife enjoyed a night on Moon Lake recently. The fish did not do much striking but we had plenty for the tables while there. We enjoyed the use of Mr. Posey's Club House while there. The club house has all the modern conveniences.

Dr. D. G. Bardwell has another son-in-law. His daughter, Eleanor, was married to Mr. Frank Sayle the latter part of April. They were married at the bride's home with a few friends present. After the wedding the bride and groom left for a visit on the Gulf Coast. They are at home in Charleston where they will reside in the future. Mr. Sayle is operating a plantation for his father.

The writer and Mrs. Moody visited Memphis this week. We were accompanied by Mrs. Leo Daughdrill, of Poplarville, a niece of the writer, who has been visiting in Charleston for several days.

The writer attended the marriage of J. S. Moody, of Poplarville, and Miss Catherine Bass, of Lake Village, Ark., which was solemnized at the Baptist Church in Lake Village May 1. After the ceremony Mr. and Mrs. Moody left for Hot Springs and other points for a brief honeymoon.

Mrs. J. W. Moody spent two weeks visiting in Bogalusa, Poplarville, Columbia and other points.

Charleston, J. W. Moody,
May 11, 1937. County Editor.

WARREN COUNTY

"Time is a sort of river of passing events, and strong is its current; no sooner is a thing brought to sight than it is swept by and another takes its place, and this too, will be swept away." In our last letter we wrote we were looking to the State Medical Association's annual meeting in Meridian, but today it is in the past and other events are passing by—but as a recollection we were impressed that the educational features and papers contributed were all good and creditable, the attendance unusually large, the politics *huge,* and the entertainment *par* excellent, especially the barbecue over at Highland Park. Our editor in his monthly card to county editors, as we recall, asked for comment and reactions on the annual meeting; so it occurs to us first, that in the future our Association meetings would be greatly benefited by better papers, and more papers from home men, (never more than one out-of-state invited guest speaker to a section), less politics, elect and select officials of the association on points of ability, personal achievements, professional contributions to local, state or national organized medicine, and the possessor of an intriguing personality that would reflect dignity and honor on our association at home or abroad. Second, that no city proffer an invitation as a meeting place for an annual session without fully ascertaining if the profession of that city is going to concern itself fiancially and socially, in a befitting entertainment, for the meeting if it is brought there.

Our doctors, as accurately as we can recall, who attended the Meridian meeting were Drs. Jack Birchett, Jr., Lawrence Clark, Leon S. Lippincott, A. Street, John Dent, Preston Herring, Edley Jones, Sydney, Hugh and Walter Johnston, Guy Jarratt, Ike Knox, Nathan Lewis, B. B. Martin, Sr., B. B. Martin, Jr., Pierre Robert, Mich Smith and Guy Sanderson.

"We never miss what we never have" but it is surmised that Mrs. Edley H. Jones missed at least one fall style Parisian bonnet on account of Edley driving too fast through Hazlehurst, Brookhaven or some of those southern towns who really have *traffic cops.*

Ike Knox is vacationing this week, up around Cincinnati, Ohio.

Dr. Pierre Robert was called the weekend to Oxford, to the bedside of a sick mother.

The graduating exercises of the senior class of the Vicksburg Hospital nurses was held at the First Baptist church, Sunday evening, June 6. The diplomas were presented by Dr. W. H. Parsons in a most impressive manner. The graduating address was made by Dr. Rogers, the popular pastor of the church. The editor had the pleasure and responsibility of guiding for eight months the studies in "Nursing Care of Communicable Diseases" of these fine young ladies. We follow their future with interest.

June 6, 1937 H. T. Ims,
Vicksburg, County Editor.

WEBSTER COUNTY

You asked what the doctors of Webster County are doing.

Here is a pen picture of the finest group of general practitioners that you will find anywhere, eleven in number.

Dr. W. A. Berryhill, the great and lovable old gentleman, the oldest doctor in our county, honest, ethical, sympathetic, loved by all the profession, and loved by his clients who have been comforted by his sympathetic council and advice. He is a member of the town council of Eupora and is the balance wheel in that deliberative body.

Dr. E. F. Arnold, the sage of medicine in Webster County, loved and admired by all; county health officer for a number of years; chairman of the Democratic Executive Committee of Webster County; member of the Eupora Special Consolidated School Board; an active church worker; loyal to his profession. His wisdom and council is sought on all matters of public interest in the county and especially in the happy little community of Bellefontaine where he has spent all his professional life.

Dr. J. H. Stennis, Mathiston's only physician, a great physician, true to his friends, strictly ethical, a straightforward gentleman, true to his convictions. He has always taken an active part in the building up of his home town where he has been practicing over 35 years. You will always find him taking a stand for or against any issue and his judgement is such that he is seldom on the wrong side. He served one term as county health officer.

Dr. H. F. Crumby, graduate of Memphis Hospital Medical College, has been practicing 25 years in the historic little village of Hohenlinden. He is a successful practitioner of medicine, very loyal to the profession, ethical and sympathetic. In addition to his professional duties he owns and operates one of the best farms in Webster County.

Dr. S. L. Taylor, active, energetic, ethical, very courteous, does one of the largest rural practices in the country. He is loyal to his profession and friends; takes care of the rich and poor alike. He has been in active practice about 35 years in the splendid community of Montevista. In connection with his professional duties he owns and operates a very fine farm and raises some of the finest chickens and hogs in the country.

Dr. R. C. Dent, a very splendid gentleman, well met and has a very happy disposition. He has been in active prctice about 35 years; graduated from Memphis Hospital Medical College; has been in our county about 15 years; does a large county practice and operates a farm in the prosperous community of Alva. He is very loyal to his profession and serves his people safely and sympathetically.

Dr. V. E. Fox, Tomnolen, a splendid little town near the historic Greenshore. Dr. Fox graduated from Memphis Hospital College 25 years ago. He serves a very large rural section and does the job well. He is always in a very fine humor and seems to get a lot out of living. He is very loyal to his profession and friends. He is very sympathetic in his nature and is always ready to serve the rich and the poor alike and is indeed a very likeable gentleman.

Dr. J. H. Brown, Eupora, a very congenial, likeable gentleman: graduated from Memphis Hospital Medical College about 30 years ago and has had one of the largest practices in the county ever since. He is strictly ethical and to know him is to like him. He has served his community well and has cared for more poor people than most men of his age. He is truly a practitioner of medicine and believes in and practices the higher standards of medical ethics. Dr. Brown served one term as county health officer of Webster Count.

Dr. J. D. Turner came to Eupora about 5 years ago; graduated in 1930 at Northwestern University; interned at Lutheran Hospital for one and one-half years at St. Louis, Mo. He is one of the younger physicians of our county, capable, energetic and a very painstaking physician. He has enjoyed a splendid practice since coming to Europa.

Dr. H. K. Curry, Eupora, the youngest of our group, graduated at University of Tennessee in 1934; interned at Knoxville General Hospital, Knoxville, Tenn., 1930; located at Eupora one year ago. He is the only one in our group that is unmarried but still thinks he will some day be able to fool some good girl. He has been enjoying a splendid practice from the start.

The writer graduated from Memphis Hospital Medical College 26 years ago; practiced at Mantee seven years and came to Eupora 19 years ago; served on the town council four years, Eupora Consolidated School Board four years, county health officer for the last 10 years.

The profession has been exceedingly kind to me as well as the people of Webster County, and I am grateful to them all. I have had plenty to do and have enjoyed it all. I still believe that the general practitioner is the backbone of the profession and will remain so.

Eupora, W. H. Curry,
June 1, 1937 County Editor.

WINSTON COUNTY

Dr. and Mrs. H. H. Tabor, Weir, visited Mr. and Mrs. G M. Webster last week.

Dr. and Mrs. W. W. Parkes and their sister, Miss Maggie Havnes, are visiting Dr. Fred Haynes, Greenville.

Dr. H. B. Watkins was on the streets this week looking after some business interests.

Drs. E. L. Richardson, W. B. Hickman, W. W. Parks and the writer attended part of the time at the meeting of the Mississippi Sate Medical Associaion in Meridian. We enjoyed the program so much.

Dr. T. C. Suttle, of Beth Eden, neighborhood was in the city last week.

Dr. W. W. Parks left this morning for a few days' fishing in the Delta at Horse Shoe Lake.

Mrs. Robert Dempsey, mother of the late Dr. Walter Dempsey, who died some years ago, died at a Meridian hospital the 2nd inst. She had been in failing health for some time.

Louisville, M. L. Montgomery.
June 3, 1937 County Editor.

YALOBUSHA COUNTY

Dr. and Mrs. George Brown attended the meetings of the Mississippi State Hospital and Medical Associations held at Meridian last month.

Dr. and Mrs. D. C. French spent last week on the Mississippi Gulf Coast.

Dr. Jesse Roark has returned to Water Valley from Hasbrouck Heights, N. J., where he has been practicing for a number of years. Dr. Roark formerly was located at Water Valley for a number of years before going to Memphis.

The annual meeting at Meridian was enjoyed very much. Meridian is a fine city for the state meeting, however, there is just one objection, and that is that it is rather hard to reach for the doctors of North and South Mississippi. We feel that Jackson is the logical place. The State Hospital Meeting was a splendid meeting and I think the outstanding feature was the unanimous disapproval of any trend leading to state medicine. I think that we want to be careful and keep politics out of our hospital association. I think everyone and every hospital should have a voice in the discussions.

Water Valley, George A. Brown,
June 5, 1937. County Editor.

HOSPITAL STAFF TRANSACTIONS

CHARLESTON HOSPITAL

The staff of the Charleston Hospital met in monthly session the first Thursday of June. Many interesting cases were discussed. There were no papers read as we find a round table discussion of more interest and more valuable than the reading of papers. The next meeting will be held in Charleston the first Thursday in July.

Charleston, J. W. Moody,
June 11, 1937.

HOUSTON HOSPITAL STAFF MEETING

The Houston Hospital held its regular monthly Staff Meeting Friday night, May 28. Dr. J. M. Hood, Houlka, who presided over the meeting was responsible for an unusually interesting program which included as the guest speaker, Dr. Conley H. Sanford, internist, Memphis, who gave an illustrated discussion of "The Classification and Treatment of Anemia." During the supper hour Miss Alta Marie Turner, accompanied by Mrs. Clyde Stewart, both of Houlka, rendered a splendid program of popular songs.

An enthusiastic discussion of Dr. Sanford's lecture was opened by Dr. Dick Cauthen McCool, psychiatrist, of Memphis, and was engaged in by all the doctors present.

The following doctors were present: Drs. Conley H. Sanford, Memphis; Dick Cauthen McCool, Memphis; J. M. Hood, Houlka; W. J. Aycock, Calhoun City; R. C. Dent, Sweatman; A. K. Naugle, West Point; J. S. Edmondson, Vardaman; W. T. Watson, Bruce; J. A. Hardin, Calhoun City; D. H. Fondren, Maben; S. H. Davis, Bruce; George Campbell, West Point; T. K. Chandler, West Point; J. H. Stennis, Mathiston; W. C. Walker, Houlka; G. G. Armstrong, Houston; E. K. Guinn, McCondy; W. C. Patterson, Houlka; S. K. Gore, Houston; J. H. Brown, Eupora; C. A. Watkins, Abbott; V. E. Fox, Tomnolen; J. R. Williams, Houston; W. H. Ivey, Houston; and V. B. Philpot, Houston.

Houston, May 31, 1937.

VICKSBURG SANITARIUM STAFF MEETING

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held Thursday, June 10, and after a supper served at 6:30 p. m., was called to order by the president, Dr. George M. Street, with eleven members and four guests present. The program included:

Reports from Records Department and Analysis of the Work of the Hospital.

Report of Vital Statistics.—Dr. F. Michael Smith, director, Warren County Health Department.

Special Case Reports—

1. Ulcer of Duodenum.—Dr. A. Street. Discussed by Dr. George Street.
2. Penetrating Wounds of the Thorax.—Dr. J. A. K. Birchett, Jr.

Discussed by Drs. S. Johnston, A. Street, George Street, and W. E. Johnston.

Demonstration of Selected Radiographic Studies— Pulmonary Tuberculosis (three cases); Sclerosis of Pulmonary Vessels (Ayerza's Disease); Aneurism of Thoracic Aorta; Duodenal Ulcer (two cases); Ureteral Calculus; Nephrolithiasis; Cholelithiasis; Double Renal Pelvis With Double Ureter.

Three Minute Reports of the Literature of the Month—

1. Dr. L. S. Lippincott—Recent Research on the Effect of Removal of the Ovaries.
2. Dr. J. A. K. Birchett, Jr.—The Fallacy of the Use of Iodine Immediately Following Bilateral Subtotal Thyroidectomy.
3. Dr. W. E. Johnston.—"Sciatica" Caused by Intervertebral Disc Lesions and Lesions of the Lumbosacral Spine.
4. Dr. R. A. Street, Jr.,—Diabetes Insipidus and Pregnancy.
5. Dr. S. W. Johnston.—Sulfanilamide in Gonococcic Infections and Sulfanilamide and Prontosil in Hemolytic Streptococcus Infections.

The next meeting of the staff will be held Monday, July 12, 1937.

ABSTRACT: PENETRATING WOUNDS OF THE PLEURA

J. A. K. Birchett, Jr., M.D.

Case 1. Colored, male, age 26.

Patient gave a history of being stabbed in the left shoulder two inches below the clavicle, the wound being about two and one-half inches long. This occurred 48 hours before admission at 1 a.m. He was taken to another hospital, where the wound was iodinized and closed with sutures. He complained of painful and grunty respiration and marked shortness of breath upon admission to the Sanitarium.

Examination showed well-developed negro male in apparently serious condition. Heart action was rapid and weak, pulse being 120, blood pressure 110/90, temperature 101°F. Percussion of the left chest was flat; there were no breath sounds, and the heart was displaced to the right. On least exertion, there was a marked tachycardia and increasing dyspnoea. Immediately after admission, an x-ray of the thorax showed the left chest cavity to be opaque, which was due to effusion of fluid blood in the left pleural space. An aspirating needle was introduced and some blood withdrawn. This precipitated a good deal of discomfort on the part of the patient and aspiration was discontinued. As the wound had been closed and there was no evidence of any drainage, it was not molested. The patient had also received tetanus antitoxin at the hospital of his previous admission. In this case, we thought it best to watch this man for complications. He was, therefore, put to bed; morphine was given for pain, and liquid and soft diet as nourishment. His general progress was without especial interest for the first four days after admission; the temperature was never over 101°F., and the pulse rate 120. His progress was uneventful until the seventh day, when some drainage of bloody serum developed from the wound. Dressing was changed. At

1 o'clock in the morning on the ninth day, patient began to complain of severe pain in the left chest and difficulty in getting his breath. The heart action was 146, with very poor volume, and respiration 50, and very labored. The next morning his respiration had dropped to 30, and the heart action was still rapid and weak. Another x-ray was taken, which showed increase in the pleural shadow, with pressure of heart and mediastinum to the right. It was though that the patient had had a secondary hemorrhage into the already filled pleural caviy, with increased mediastinal pressure and the development of marked shock. Therefore, the pleural cavity was aspirated and 650 c.c. of dark red blood with a very foul odor were aspirated. This gave the patient relief and the pulse was again perceptible, the rate being 130, and respiration had dropped to 30. By that night the pulse was 112 and repiration 28, the temperature being normal. The tenth and eleventh days showed the patient getting progressively better, the pulse having dropped to 108 and the respiration being below 24. On the eleventh day, at 10:30 a.m., 48 hours after the second aspiration, 1300 c.c. of dark red blood were aspirated from the left pleural cavity. The pulse, at this time, was 94, and the respiration 20; temperature was 101.6°F. His general condtion was satisfactory. At midnight on the eleventh day, the patient again began to complain of marked dyspnoea. Pulse rate suddenly jumped to 138, respiration 36, and from that time on, respiration became more and more labored and the patient died at 10 a.m. of the twelfth day after admission.

Case 2. Colored, male, age 20.

Gave a history of having been stabbed in the left side of the thorax in the region of the third and fourth interspaces, anterior, with a knife the night before. Patient was admitted to the Sanitarium, where the wound was cleansed with iodine and a dressing applied. Patient was put to bed and given morphine for pain. There was no evidence of any great amount of shock associated with the injury. There was some coughing and pain on respiration, but there was no bloody expectoration and no evidence of any great amount of blood loss. X-ray taken on the morning after admission showed a left hemopneumothorax from penetrating stab wound of the thorax. Patient was watched carefully. On the morning of the second day after admission, pulse suddenly went to 136, there was fever of 103°F., and he complained of difficulty in breathing. On the morning of the second day at 10 o'clock the left chest was aspirated and 650 c.c. of dark red blood obtained. There was some relief afforded; the respiration droppd from 54 to 24 per minute. That afternoon at 4 o'clock the temperature was 104°F., the pulse 132, and respiration 44. There was also evidence of sucking in the wound of the chest and with every expiration fresh blood bubbled from the wound. It was necessary to keep a tight dressing over this area to relieve this condition. For several days the patient's condition continued serious, the respiration being anywhere from 40 to 72, the pulse being almost imperceptible, and too rapid to count, and the temperature 101 to 104°F. Patient continued to have blood pouring from the wound, which was only controlled with the tight binder, and it was necessary to keep him under morphine most of the time. On the fifth day, 500 c.c. of citrated blood were given intravenously, it being the first blood that we had been able to obtain for him. The next day the temperature, pulse and respiration showed evidence of improvement. On the sixth day the gauze packing in the wound was removed and the skin clips were taken from the wound edges. There was a tremendous outpouring of old and new blood, and the patient looked for a minute as if he were in syncope, but the wound was packed, glucose was administered and improvement followed. On the tenth day, transfusion was given with improvement. On the fifteenth day, a donor was again found and transfusion of 50 c.c. of citrated blood was given, as there continued to be a flow of new blood from the stab wound. By the twentieth day the wound had begun to close up, the bleeding had become less, and there was some purulent drainage. The pulse, temperature, and respiration were more normal. On the twenty-second day, the patient was permitted to sit in a wheel chair and, by the thirty-sixth day, condiion was satisfactory enough to permit him to return to his home, temperature being normal, the pulse normal, and respiration normal, the wound still discharging purulent drainage. He was requested to report to the out-patient department of the Saniarium weekly, which he has done and follow-up x-ray has been taken, which shows evidence of expansion of the lung and general improvement in his condition.

* * *

—COMMENT—

It has been our usual procedure, in treating penetrated wounds of the thorax, to follow the so-called conservative treatment, that is, disinfection of the wound with iodine, packing with iodoform gauze, and applying a tight dressing. As soon as feasible, an x-ray of the thorax is done to ascertain the presence of hemothorax or hemopneumothorax, these conditions usually being evidenced symptomatically by the general discomfort of the patient, who complains of dyspnoea and substernal pressure, because of the presence of the fluid accumulation. If there is a large accumulation of blood or air, then it is perfectly permissable to put a needle in the chest and aspirate a sufficient amount of either to relieve the pressure symptoms. However, we must bear the fact in mind that increased intrathoracic pressure from the accumulation acts as an ideal hemostatic agent by pressure, when there is an injury of one of the deep vessels of the lung, and if the pressure is removed too quickly, before the proper hemostasis has developed, then there may be a secondary hemorrhage and, for that reason, it has been our practice to be rather guarded about our aspirations of these cases.

Unquestionably, the interesting work of Connors and Stanbuck, of Harlem Hospital of New York City, published in the "Annals of Surgery" in 1933, is of noteworthy interest. They have developed a procedure of treatment, which is more in keeping with surgical principles as are practiced elsewhere in the body. That is, they advocate the exploration of the thoracic wound immediately after the patient has been seen. They do not make an incision in the region of the tract where the foreign body penetrated, but usually about an inch under the point of entrace, as most of these wounds are directed downward. They explore the pleura through which the wound has been made, and they bring out the interesting fact that the pleural wound is usually several times larger than the wound of the subcutaneous tissue. That is due, of course, to the movement of the knife by the assailant and the effect of the respiratory excursions on the knife blade. It is an interesting fact that most of these penetrated wounds of the chest which we see are due to knife blade or ice pick injuries, and very few are due to gunshot wounds. This is very probably due to the fact that the gunshot wound usually proves fatal immediately, before the victim has gotten to the hospital and, of course, the marked preponderance of stab wounds is because of the famed "crab-apple switch," for which our colored gentry are so noted for using as a weapon of attack. Connors and Stanbuck further state that after they have carefully explored the pleural rent, and have resected a section of the rib closest to the injury, they then reach into the pleural cavity, drawing the lung, which is collapsed, of course, into the field and carefully inspecting it for injury. If there is a penetration of the lung parenchyma, then this opening is fixed to the opening in the pleura and the lung is then sutured into the pleural rent. This seals off the pleural cavity, minimizes the development of a pneumothorax and hemothorax, and stabilizes the lung to the chest wall so that it expands more quickly than it would ordinarily after an injury and collapse. It seems to me that one of the important facts which they bring out is that this procedure gives a stabilization of the mediastinum and the heart, and prevents the detrimental symptoms of the so-called "flapping" lung. Their statistics prove conclusively that the immediate surgical investigation of these penetrated wounds of the thorax is materially better than the so-called expectant treatment.

These two cases which I have presented, I feel, are very good illustrations of the penetrated wound of the thorax, with its developments and complications. Unquestionably, the cause of death in Case I was either a sudden reduction of the intrathoracic pressure by the aspiration on the tenth day, and the development of mediastinal flutter and heart collapse, or, after the reduction of the intrathoracic pressure, there was a secondary massive hemorrhage with collapse. There is a possibility that if this case had been opened and the pleural cavity explored, and the wound in the lung found and closed by suture and the lung fixed in the pleural rent, that we might not have lost this patient.

The second case was simply a repetition of of the first but, fortunately, the end result was not the same. However, it was necessary to aspirate this chest several times because of tremendous intrathoracic pressure and discomfort and, each time following it, there was a mild secondary hemorrhage, for which, fortunately, we were prepared each time and transfusion was given to combat this shock. It seems to me that these observations bring out the fact that there are certain types of cases of penetrated wound of the thorax which could be treated by the so-called conservative treatment, but direct surgical treatment has so many advantages in overcoming the common complications of this injury that it should be resorted to more often in the future.

ROLL OF HONOR

The following have contributed to *The Mississippi Doctor* this month.

County Editors: DeSoto, L. L. Minor; Grenada, J. K. Avent; Humphreys, J. W. Jackson; Leflore, W. B. Dickins; Panola, G. H. Wood; Prentiss, L. L. McDougal; Sunflower, H. B. Cottrell; Tallahatchie, J. W. Moody; Warren, H. T. Ims; Webster, W. H. Curry; Winston, M. L. Montgomery; Yalabusha, Geo. A. Brown.—12.

Societies: Coahoma County, E. Leroy Wilkins; Coast Counties, R. G. Lander; Issaquena-Sharkey-Warren Counties; Marshall County, V. B. Harrison; Tallahatchie County, J. W. Moody; Tri-County, R. B. Zeller.—6.

Hospitals: Charleston Hospital, J. W. Moody; Clarksdale Hospital, E. LeRoy Wilkins; Houston Hospital; Vicksburg Sanitarium.—4.

Others: W. L. Little, and Felix J. Underwood.—2.

Grand Total:—24.

Thank You!

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASSOCIATION

MILLARD-HOOPER RITES SOLEMNIZED JUNE 12

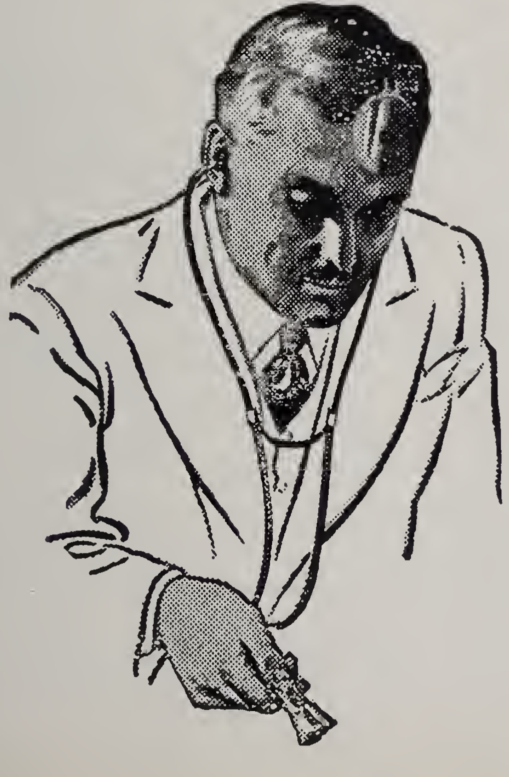
Dr. and Mrs. S. J. Hooper are today announcing the marriage of their daughter, Sunshine, to Rev. James Millard, of Richmond, Va. The ceremony took place on Saturday, June 12, in Richmond, with Rev. Norfleet, close friend of the bride-elect, officiating.

The above announcement is of much interest in the social circles of Jackson as the Hooper family has long been outstanding in the social and civic life of the city.

The bride is a popular member of the social set here. She was graduated from the Central High school. Later, she received her education at Sophie-Newcomb College, in New Orleans, La., and attended Randolph-Macon Woman's College, in Lynchburg, Va. She is a member of the Chi Omega soroity.

Rev. Millard received his Bachelor of Science degree from Hampden-Sidney College in Richmond, Va., and later was graduated from the Union Theological Seminary in Richmond. He is at present pastor of the First Presbyterian church in Emporia, Va.

Rev. and Mrs. Millard are now visiting the bride's parents, Dr. and Mrs. Hooper, at 812 Gillespie street. They expect to remain in Jackson for ten days.



ALERT . . .

Quick to ferret out the causes of illness, the modern physician holds a place of valued responsibility in community life.

Another vital factor in 309 Mississippi towns, cities, communities and adjacent rural territory is the role played by this company. Its thousand and more employees are constantly alert, that medical laboratories, farms, homes and factories may have always available the electric power and service so essential to community development.

MISSISSIPPI POWER & LIGHT CO.

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and
Medical Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

JOHN W. RAGSDALE, M.D.
CHESTER D. ALLEN, M.D.
327 Medical Arts Bldg.
Memphis, Tenn.
Urology and Urological Surgery

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as applied in this field
1403-1407 Exchange Bldg.
Memphis, Tenn.

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Memphis, Tennessee
Phones: Off: 6-1923 Res: 4-4213

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tenn.

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Miss.

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

ROBIN HARRIS
Eye, Ear, Nose and Throat
and Bronchoscopy
Lamar Life Building
Jackson, Mississippi

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 6-3288
899 Madison Ave. Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Miss.

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WM. MILTON ADAMS, M.D.
Practice Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tenn.

HENRY G. HILL, M.D.
Clinic, 847 Madison Avenue
Memphis, Tennessee
Practice Limited,
Diseases and Injuries
Bone and Joints
Cripples and Deformities
Braces and
Orthopedic
Appliances

FRANK W. SMYTHE, M.D.
Practice limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-surgery
Physicians and Surgeons Bldg.
Memphis, Tenn.
Phones: Off: 6-3288 Res: 2-9645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tenn.

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tenn.

GILBERT J. LEVY, M.D.
Practice Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap, St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tenn.

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tenn.

DR. Wm. F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Miss.

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Bldg.
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy
Ionization for Hay Fever

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Miss.

T. E. WILSON, M.D.
Practice Limited to Internal Medicine
Office 522 Standard Life Building
Jackson, Miss.

ROBERT H. BRUMFIELD, M.D., F.A.C.S.
General Surgery and Urology
McComb, Miss.

DR. J. W. LIPSCOMB, JR
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Miss.

LAWRENCE W. LONG, B.A., M.D., F.A.C.S.
410-412 Standard Life Bldg.
Jackson, Miss.
GENERAL SURGERY
Surgical Diseases of Children.

F. M. ACREE, M.D.
Greenville, Miss.

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

R. L. DONALD, M.D.
207-8 Miazza-Woods Bldg.
Meridian, Mississippi
Office Hours: 10 to 12 a. m.—3 to 5 p. m.

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians & Surgeons Bldg.
(899 Maddison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
and
Bronchoscopy
Princess Theatre Building
Columbus, Miss.

W. L. WILLIAMSON, M.D., F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

RICHMOND McKINNEY, M.D.
Otolaryngology, Bronchoscopy, and
Esophagoscopy
Suite 218 Physicians and Surgeons Bldg.
(Baptist Hospital Annex)
Memphis, Tenn.

DR. J. CASH KING
formerly at John Gaston Hospital
and University of Tennessee
announces the opening of his office
for the practice of RADIOLOGY
902 Madison Avenue
Memphis, Tennessee Telephone 6-7460

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham, Ala.

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

Walter W. Robinson, M.D.

Crisler Clinic

1291 Union Avenue

Memphis, Tenn.

Specializing in

PATHOLOGY

ROENTGEN

DIAGNOSIS and THERAPY

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S.. Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS Clinical Pathology
MARJORIE WADE, Bacteriology

SHIELDS ABERNATHY, M.D., F.A.C.S.

HOWARD H. ASHBURY, M.D., Oncologist

CLINIC

For General Surgical and

Neoplastic Diseases

Complete Modern Radiological Equipment

1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING

I. G. Duncan, B.S., M.D., F.A.C.S.

J. S. Fleming, M.D.

GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION

Suite 1500-06 Commerce Title Bldg.

Memphis, Tenn.

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

Printing . . .

We Specialize in Printed Supplies for the Medical Profession

Magnolia Printing & Supply Company

B. W. SANDIFER, Mgr.

Phone 6022

511 E. Pearl St. Jackson, Miss.

Founded in 1879

Allison's Wells

HOTEL - SANATORIUM

Famous through the years for the wonderful properties of its mineral water and as a health resort, Allison's Wells, under the direction of Dr. A. J. Brown this year has become the only sanatorium of its kind in Mississippi.

In addition to maintaining its full popularity as a resort-hotel, Allison's Wells has added a sanatorium department for the treatment of malaria, mild mental diseases, gastro-intestinal trouble, gall bladder trouble, arthritis and other troubles.

The sanatorium, which is guided by a board of governors composed of ethical physicians, is equipped with modern facilities.

For full information and rates, address

ALLISON'S WELLS,
HOTEL - SANATORIUM
On I. C. Main Line between Canton and Durant, on Jefferson Davis Highway.
WAY, MISS.
A. J. Brown, M.D.
"A Source of Health In The Garden Spot of Central Mississippi"

In Fighting Syphilis . . .

ACCEPTED
AMERICAN
MEDICAL
ASSN
Council on Pharmacy and Chemistry

BISMUTH
Subsalicylate
U. S. S. P. Co.

According to clinical results, Bismuth Subsalicylate offers the following advantages:

- Relatively non-toxic when the dose is properly controlled.
- No contraindications when administered following arsenicals.
- Practically no local irritation and freedom from abscesses at site of injection.
- Requires very little shaking.

Bismuth Subsalicylate should be given intramuscularly . . . 1 cc. at weekly intervals for 12 to 15 injections, according to indications. INTRAVENOUS INJECTION IS TO BE STRICTLY AVOIDED.

U. S. STANDARD PRODUCTS CO.
Biologicals, Ampules and Glandular Products of Highest Quality and Purity.

WOODWORTH, WISCONSIN

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 **221 North Farrish St.**
Jackson, Mississippi

DUCKWORTH DRUG COMPANY
Booneville, Mississippi

Distributors of:

Luminal of Sodium

Tablets and Powder

Novocaine Ampoules

Atabrine

Elixir of Pryamidon

Theominal Tablets

WINTHROP CHEMCAL COMPANY
New York City

HOUSTON HOSPITAL, Inc., HOUSTON, MISSISSIPPI

Approved: American College of Surgeons and American Hospital Ass'n.

—FULL TIME STAFF—

V. B. PHILPOT, M.D., F. A. C. S. Surgery and Gynecology	G. G. ARMSTRONG, M D., F.A.C.S. Eye, Ear, Nose and Throat
J. R. WILLIAMS, M.D. X-ray, Superficial and Deep Therapy and Radium	DOUGLAS D. BAUGH, M.D. Diagnosis and Internal Medicine

LET US . . .

Supply your needs, such as:

- Prescription Blanks
- Laboratory Blanks
- Letter Heads
- Statements
- Envelopes
- Blotters

SPECIAL: 10,000 Prescription Blanks........$8.50

Send your order to

BOONEVILLE PRINTING CO., Inc.
Booneville, Miss.

MEMPHIS' ***newest and most conveniently located hotel . . . .***

the Wm. Len

In addition to its famous southern cuisine and luxurious accommodations, the Wm. Len serves its guests an extra measure of genuine southern hospitality.

right down town in Memphis
ON MAIN AT MONROE

Hotel Wm. LEN
MEMPHIS, TENN.
R. E. McEachin, manager

Blue Mountain College

Cradle of Southern Culture
Inaugurated
The Southern Literary Festival
on
Shakespeare's Birthday
April 23, 1937

THE Southern Literary Festival, held at Blue Mountain, will be observed annually on the same date. The South is "ready definitely to enter a literary renaissance," Professor C. P. Lee of Southwestern at Memphis told the festival. Professor M. L. White, head of the Department of English at Millsaps College, voiced the sentiment of the group of representatives from 12 colleges in four states in his statement, "I consider the Southern Literary Festival just now concluding its first annual meeting, the greatest impetus to creative writing in the colleges that I have known."

The two principal speakers were Margaret Flint, novelist, who won the $10,000 Pictorial Review novel prize in 1936, and Robert Penn Warren, poet from Baton Rouge, La., editor of SOUTHERN REVIEW, former Rhodes scholar at Oxford, professor of creative writing in Louisiana State University.

BLUE MOUNTAIN COLLEGE

Blue Mountain, Mississippi

A Senior College for Women

A college of liberal and fine arts thoroughly accredited by full membership in The Southern Association of Colleges and in The Association of American Colleges.

Lawrence T. Lowrey, President

Main Building

NEW FENWICK SANITARIUM

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES

DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association — medical staff specially trained — clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds — homelike environments — located in the healthy and beautiful town of Covington, Louisiana — a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

The
Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, AUGUST, 1937 NO. 3.

HE N. Y. A
OF MEDICINE
OCT 2 37
LIBRARY

WAIT

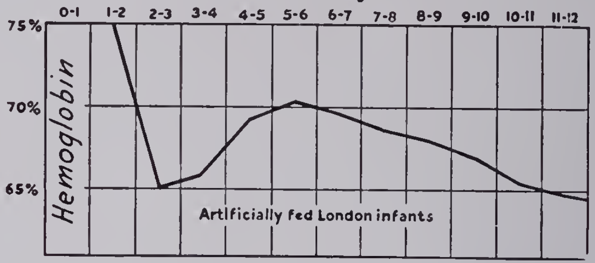
If but one message I may leave behind,
One single word of courage for my kind,
It would be this—Oh, brother, sister, friend,
Whatever life may bring—what God may send—
No matter whether clouds lift soon or late—
Take heart and wait.

Despair may tangle darkly at your feet,
Your faith be dimmed, and hope, once cool and sweet,
Be lost—but suddenly, above a hill
A heavenly lamp set on a heavenly sill
Will shine for you and point the way to go.
How well I know!

For I have waited through the dark, and I
Have seen a star rise in the blackest sky,
Repeatedly—it has not failed me yet.
And I have learned God never will forget
To light His lamp. If we but wait for it,
It will be lit.

By Grace Noll Crowell

Nutritional Anemia in Infants



The accompanying chart of the hemoglobin level in the blood of infants is based on more than 1,000 clinical cases studied by Mackay. The sharp drop in hemoglobin during the early months of life has also been reported by a number of other authorities. It is noteworthy that this fall in hemoglobin has been found to parallel closely that of diminishing iron reserve in the infant's liver. The usual milk formula of infants in early life further contributes to this anemia because milk is notably low in iron. It is now possible, however, to increase significantly the iron intake of bottle-fed infants from birth by feeding Dextri-Maltose With Vitamin B in the milk formula. After the third month Pablum as the first solid food offers substantial amounts of iron for both breast- and bottle-fed babies.

Reasons for Early Pablum Feedings

1. The iron stored in the infant's liver at birth is rapidly depleted during the first months of life. (Mackay,[1] Elvehjem.[2])

2. During this period the infant's diet contains very little iron—1.44 mg. per day from the average bottle formulae of 20 ounces, or possibly 1.7 mg. per day from 28 ounces of breast milk. (Holt.[3])

For these reasons, and also because of the low hemoglobin values so frequent among pregnant and nursing mothers (Coons,[4] Galloway[5]), the pediatric trend is constantly toward the addition of iron-containing foods at an earlier age, as early as the third or fourth month. (Blatt,[6] Glazier,[7] Lynch[8]).

The Choice of the Iron-Containing Food

1. Many foods reputed to be high in iron actually add very few milligrams to the diet because much of the iron is lost in cooking or because the amount fed is necessarily small or because the food has a high percentage of water. Strained spinach, for instance, contains only 1 to 1.4 mg. of iron per 100 gm. (Bridges.[9])

2. To be effective, food iron should be in soluble form. Some foods fairly high in total iron are low in soluble iron. (Summerfeldt.[10])

3. Pablum is high both in total iron (30 mg. per 100 gm.) and soluble iron (7.8 mg. per 100 gm.) and can be fed in significant amounts without digestive upsets as early as the third month, before the initial store of iron in the liver is depleted. Pablum also forms an iron-valuable addition to the diet of pregnant and nursing mothers.

Pablum (Mead's Cereal thoroughly cooked and dried) consists of wheatmeal, oatmeal, cornmeal, wheat embryo, brewers' yeast, alfalfa leaf, beef bone, iron salt and sodium chloride.

[1-10] Bibliography on request.

MEAD JOHNSON & COMPANY, Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons

SUMMER!

Summer days show a marked increase in accidental injuries. The vacationist, the farmer, the child at play may all suffer wounds contaminated with spores of tetanus and gas gangrene-producing bacteria. Treatment of all dirt-contaminated, contused and penetrating wounds should include combined prophylaxis against tetanus and gas gangrene.

ACCIDENTS!

We suggest Parke-Davis Tetanus-Gas Gangrene Antitoxin (Combined), Refined and Concentrated. The customary prophylactic dose—1500 units tetanus antitoxin and 2000 units each perfringens and vibrion septique antitoxin—is available in syringe packages and in rubber-diaphragm-capped vials.

PROPHYLAXIS!

PARKE, DAVIS & COMPANY • Detroit, Michigan
The World's Largest Makers of Pharmaceutical and Biological Products

Short-Wave Diathermy Unit

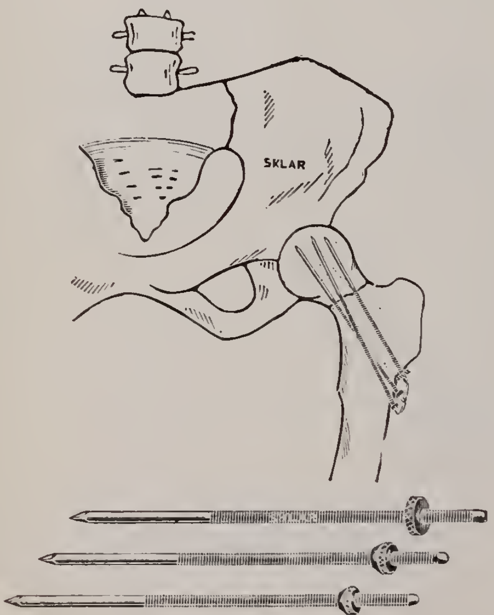
STANDARD MODEL
500 WATTS OUTPUT
18 METERS

Standard accessory equipment furnished with the Hogan Brevatherm "Standard Model" includes:

1 pair 5" x 7" condenser plate electrodes
1 pair 7" x 9" condenser plate electrodes
2 pair cuff electrodes (medium and small)
1 felt "build-up" pad for each electrode above
1 pair rubber electrode bandages with fasteners
1 line cord and plug

Treatment cords with jack plugs are attached to each electrode.

THE GWINNER-MERCERE CO.
191 MADISON AVE.
MEMPHIS, TENN.



Set of 3 nails $3.75

DR. AUSTIN T. MOORE'S

ADJUSTABLE NAILS

The advantages of this new technique are many: The operation is not difficult to perform; it can be done entirely under local anesthesia; time of operation, in majority of cases, is but 30 or 40 minutes. There is far less disturbance to the blood pressure than by other methods. The equipment for the operation is simple and inexpensive — no complicated apparatus is required.

Another distinct advantage of Dr. Moore's technique is that X-ray expense is reduced to a minimum (an experienced surgeon can perform the operation without an X-ray).

Prolonged hospitalization is avoided and ambulation is very speedy — frequently immediate.

Dr. Moore's complete set of personally designed Bone Instruments are available to all surgeons.

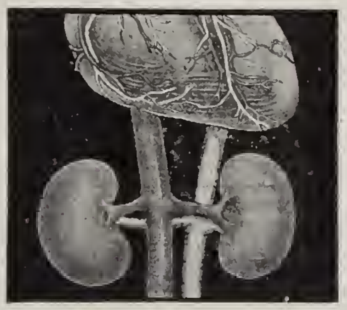
Write us for prices and descriptive literature on Moore's Complete Bone Instruments.

McKesson & Robbins, Inc.
Doster-Northington Division
Birmingham, — Alabama

TCS

Theobromine, gr. 3.40 Calcium, gr. 0.12 Salicylates, gr. 3.48
Phenobarbital, gr. 0.25

Diuretic, coronary vasodilator, myocardial and renal stimulant and neuro-circulatory sedative.



Indications: Hypertension, angina pectoris, coronary thrombosis, myocardial insufficiency, and edema.

Directions
One to three tablets three or four times daily.

Dispensed in bottles of 50 and 250 tablets

WM. P. POYTHRESS & COMPANY, *Inc.*
MANUFACTURING CHEMISTS
RICHMOND VIRGINIA

JEFFERSON STANDARD LIFE INSURANCE CO.

The largest regular ordinary Life Insurance Company South of the Mason-Dixon Line.

Policy contracts especially adapted to members of the medical profession.

Trained life underwriters to advise and assist in securing your needs.

J. L. DENSON, District Manager
523-25 Lampton Building
Jackson, Miss.

JEFFERSON STANDARD LIFE INSURANCE CO.
JULIAN PRICE, President
Greensboro, N. C.

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate

Here's A **FLEXIBLE** Short Wave

L-F

STANDARD MODEL

Short Wave Generator

TWO METHODS OF APPLICATION!

LIEBEL-FLARSHEIM
Standard Model
Short Wave Generator
——Accepted——
American Medical Assn.
Council on Physio-Therapy

A most acceptable unit for average use. Generally recognized as the best dollar-for-dollar Short Wave value available. Over a thousand now in use—all rendering eminently satisfactory service.

AMPLE POWER is generated for all types of pad and cable therapeutic treatment, including fever therapy. Current for minor office electro-surger is also available.

SIMPLE TO OPERATE—having only a single dial control for each modality—instantly and smoothly regulated—no jumps or steps. Shock proof—an all-purpose unit. Product of electro-medical apparatus manufacturers in business over twenty years.

INDUCTANCE CABLE

—as well as—
CONDENSER-PADS

This choice of applicators enables you to use the method best suited to the part being treated. Condenser-Pads are recommended for use on regular surfaces, and Inductance Cable for irregular surfaces. Either modality is quickly and easily applied.

MODERATELY PRICED—TERMS—Easy payments to suit your convenience will make the installation of this unit virtually a self-liquidating investment.

It will pay you to investigate the many advantages of this unit. It is the only Short Wave generator on the market affording the use of two methods of application, namely, the Inductance Cable and Condenser-Pad applicators—which have stood the test of prolonged use—nearly two years! Literature gives complete details.

THE DICK X-RAY COMPANY
MEDICAL ARTS BUILDING MEMPHIS, TENN.
Tear off Coupon and Mail Today—No Obligation

THE DICK X-RAY CO.
Medical Arts Bldg.
Memphis, Tenn.

Please let me have complete details on the L-F Standard Model Short Wave Generator—without any cost to me.

DR. ______________________________

ADDRESS ______________________________

HOYE'S SANITARIUM

"IN THE MOUNTAINS OF MERIDIAN"
Meridian. Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital.

Robert E. Lee Hotel

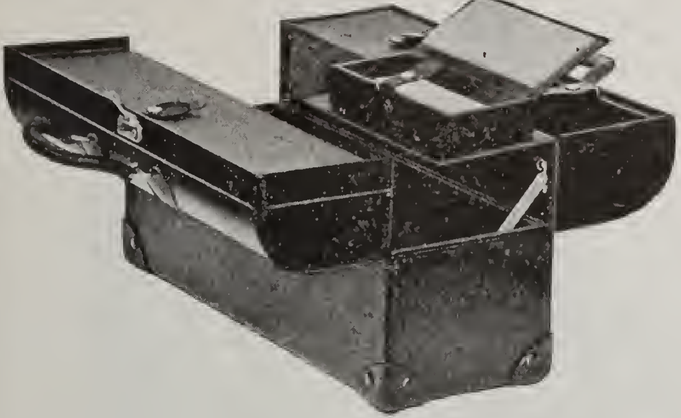
"The High Spot of Southern Hospitality"

Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager STEWART GAMMILL, Jr., Asst. Mgr.



PANDORA THE PHYSICIAN'S BAG THAT IS ALWAYS ORGANIZED

Genuine smooth topgrain cowhide, toughest and finest material possible. Rigid frame never gets out of shape. Concealed hinges, sliding catch, lock, and key. Five compartments. Length 17 inches. Price $19.00 delivered.

MEDICAL AND SURGICAL SUPPLY COMPANY
Corinth, Miss.

THE SOUL OF THE SURGEON

BY DR. RUDOLPH MATAS

Composition Cover .... 60c; Leather Cover 85c

Send your order to:

The Mississippi Doctor — J. A. Majors Co.
Booneville, Miss. — New Orleans, La.

The Three Muskateers Book Shop
Peabody Hotel Bldg.—Memphis, Tenn.

BAPTIST HOSPITAL
Jackson. Miss.

THE WALLACE SANITARIUM
MEMPHIS, TENN.
WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.
O. A. SCHMID, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

---

THE
WILLIS C. CAMPBELL
HUMERUS
SPLINT

3 Sizes Each $7.50
(Either Right or Left)

Wire, Write or Phone. Wall Chart on Request.
Complete Fracture Equipment

RICHARDS MANUFACTURING CO.
Phone 6-2566 Memphis. Tenn.

IN THIS ISSUE

RADIUM AND ITS USES IN GYNECOLOGY
Quitman U. Newell, M.D., F.A.C.S. 1

PROSTATISM
Hugh T. Beacham, B.Sc., M.D., M.Sc., F.A.C.S. 5

TUBERCULOUS FROM THE STANDPOINT OF THE GYNECOLOGIST
Lucien A. LeDoux, M.D., F.A.C.S. 10

NUTRITIONAL ANEMIA
Robert A. Strong, M.D. 13

EYE INJURIES, THEIR TREATMENT AND SEQUELAE
D. W. Hamrick, M.D. 17

EDITORIALS 21

PROGRAM OF CENTRAL MEDICAL SOCIETY 24

DR. ALBERT KELLY BARRIER 27

FROM DR. HARVEY F. GARRISON 28

DR. A. P. STEWART 29

DR. J. RICE WILLIAMS 30

BOOK REVIEWS 31

SUMMARY OF THE NEURALGIAS AND EAR SYMPTOMS ASSOCIATED WITH THE MANDIBULAR JOINTS
J. B. Costen, M.D., ... 33

RABIES OR HYDROPHOBIA
E. S. Brashier, D.V.S. 42

IS SINUS SURGERY EFFECTIVE?
D. C. Montgomery, M.D. 52

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS 55

INDEX TO ADVERTISERS

Allison's Wells xiv
American Surgical Supply Co. xv
Baptist Hospital, Jackson, Miss. vii
Blue Mountain College .... inside back cover
Booneville Printing Co. xviii
Courtesy Cards .... xi, xii, xiii, xiv
Draughon s School of Commerce xvi
Duckworth Drug Co. xvi
Eli Lilly & Co. x
H. A. Phillips Artificial Limb Co. xvi
Hotel Wm. Len xvii
Houston Hospital, Inc. xviii
Hoye's Sanitarium vi
J. A. Majors Co., and The Three Muskateers Book Shop vii
Jefferson Standard Life Insurance Co. iv
Lynnhurst Sanitarium iv
Magnolia Printing & Supply Co. 69
Mead Johnson & Co. .... inside front cover
Medical And Surgical Supply Company vii
McKesson & Robbins, Inc. ii
Mississippi Power & Light Co. xix
New Fenwick Sanitarium .... back cover
Parke, Davis & Co. i
Richards Manufacturing Co. viii
Robert E. Lee Hotel .... [illegible]
The Dick X-Ray Co. v
The Gwinner-Mercer Co. ii
The Wallace Sanitarium viii
U. S. Standard Products Co. xix
William P. Poythress & Co., Inc. iii

PROTAMINE, ZINC & ILETIN
PROTAMINE ZINC I
LILLY
10 cc.
This preparation contains approx. 0.2
Keep in a cold place, preferably a refrigerator.
AX-124
ELI LILLY & COMPANY
Lilly
PROTAMINE ZINC & ILETIN (INSULIN, LILLY)
PROTAMINE ZINC INSULIN LILLY
40 Units per cc.
000

PROTAMINE, ZINC & ILETIN (INSULIN, LILLY)

PROTAMINE ZINC INSULIN
LILLY

● Preparation of the active antidiabetic principle in sparingly soluble form as Protamine Zinc Insulin provides a means for prolonging the relatively fleeting action of unmodified Insulin. The characteristic antidiabetic effect of Insulin has been retained, but the velocity of its action has been moderated. The prolongation of the Insulin effect over the entire day not only adds materially to the comfort of the diabetic patient, but justifies the hope that the complications of diabetes may now be rendered less frequent in occurrence.

Protamine, Zinc & Iletin (Insulin, Lilly) is marketed by Eli Lilly and Company in 10-cc. vials. Literature describing its clinical application will be promptly furnished upon the request of physicians.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Radium and Its Uses in Gynecology

QUITMAN U. NEWELL, M.D., F.A.C.S.

(From the Department of Obstetrics and Gynecology, Washington University
School of Medicine and Barnes Hospital)
ST. LOUIS, MO.

Marie Sklodowska (Curie) the discoverer of radium, was born in Warsaw Poland November 7, 1867. Her father and mother were professors of physics in Warsaw schools. She received her early education at home under parental instructions. In 1892 she went to Paris to study mathematics and physics. While working at the Sarbonne in the spring of 1894, she met Pierre Curie, a tall young man with dreamy eyes, also a student in physics.

Pierre Curie was the son of a Paris physician and was born on May 15, 1859. He possessed a keen mind for research and devoted much time to electrical research. In 1895 he married Marie Sklodowska who immediately joined him in doing research at the school where he was professor of physics. They both became deeply interested in the newly discovered roentgen rays and above all, in Bequerel's observation of the rays emitted by uranium compounds. Madam Curie was given a small private laboratory to carry on her research, and although it was poorly equipped, she contrived many instruments in order that she might carry on what work she wished to do. She found that by the use of an electrometer, recently invented by her husband, that the intensity of the radiation was proportional to the amount of uranium, independent of the chemical structure in which the uranium was found and independent of outside conditions, temperature, etc.

She next studied other substances to see if similiar radiation was emitted, using the same apparatus. She found that only thorium compounds had properties similiar to those of uranium and that they emitted similiar radiation. She called this new form of energy in uranium and thorium "radio-activity."

In these experiments, Madame Curie examined a large series of minerals in which uranium and thorium were present. She found that pitchblende from an Austrian mine, showed a very high radioactivity. She then set to work in earnest to find out what this radioactivity was and in July 1898, her husband collaborating with her, made the discovery to which she gave the name "Polonium." They also found connected with the barium extract of the ore a very high radio-active substance which emitted two million times as much radiation as uranium. This they announced in December 1898 and called it *radium.*

These new elements were present only in faint traces in the substances investigated —it took about 25 pounds of ore to extract 1/1000 of a gram of radium. The Curies were greatly handicapped in their work by the lack of funds, working material, space, etc. Finally, the Vienna Academy of Sciences offered them support, and the mines of Joachimsthal, in Bohemia, placed several tons of ore at their disposal. They worked in very unsatisfactory surroundings as they had to furnish the cost of everything from their pockets and they were of course very poor. Pierre Curie devoted most of his time to a study of the properties of the newly discovered elements while Madame Curie performed the chemical purifications.

Like Rontgen, the Curies did not profit in any way from their important discovery. They published numerous articles pertaining to radium. On April 19, 1906, Pierre Curie was run over by a truck and killed instantly. He was Professor of Physics at the Sarbonne at the time and was succeeded by Madame Curie.

She organized and built the Radium Institute in 1912, and she was made head of its research laboratory, the position which she holds today.

Madame Curie is still active as the head of the Curie Institute and as Professor of Physics at the Sarbonne.

Her daughter, Irene, who is married to a young scientist, J. F. Joliot, has already, together with her husband, achieved excellent results in research work at the Curie Institute, and thus carries on the Curie tradition.

It is chiefly upon the work of Wilhelm Conrad Rontgen and of Pierre and Marie Curie that the brillant science of radiology has been erected.

The history of radium in medicine is by no means complete without mention of the distribution and extraction of radium ores. In the United States a radium bearing ore called carnotite, was discovered in Colorado and Utah soon after the work of the Curies was published. Previous to this, radium had been obtained from pitchblende, a rich ore found chiefly in Joachimsthal in Bohemia. Carnotite from the United States had to be shipped to Europe in order to extract radium, and American physicians had to purchase the purified product from aboard. From 1910 onward radium was in great demand. In 1914 the mines of Colorado and Utah were producing about 1 gram of radium per month. Following the World War rich radium ores which had been discovered in the Belgian Congo in 1913 were developed and the product was refined in Belgium. The ore was forty times richer in radium content than carnotite, thus all United States production was forced to cease, and since 1922 Belgium had had practically a world monoply. However, recently ores have been discovered in Canada and Alaska that are rich in radium and may soon provide a source of supply to compete with the Belgium controlled source.

The Denver plant in the United States produced about a third of a pound between 1912 and 1922 when radium sold at $450,000 an ounce. The present price is between $60,000 and $75.000 a gram, or around $150,000 an ounce. There are 500 grams in the world and the United States has 260 of them.

Very recently some consideration has been given by the United States Government again to operate the mines in Colorado and extract radium from the ore by a much simpler process than in the past and at a much less expense. If such a feat is accomplished, radium will soon be on the market at a much less price than it is today and will be available for any person that needs it for treatment of cancer.

Besquerel and Pierre Curie in 1901 discovered that radium when applied to the skin caused a burn similiar to sunburn and that it took a long time for the burn to heal. They suggested that radium may be useful in medical work.

Daulos, in Paris, a dermatologist, after using radium three years for treatment of various skin diseases published his work stating radium was useful within restricted limits. Wickham and Degrois in 1906, with the cooperation of Armet de Lisle, established in Paris a laboratory for the study of radium therapy. Dominici was appointed director of the physiologic and therapeutic departments. Wickham and Degrois were directors of the pathological department. Previous to this time radium had been tentatively tried in the treatment of cancer, but only with occasional success with surface cancers. No effect was observed on deep seated malignant growths. Wickham in 1906 stressed the dosage factor and was the first to employ filtration of the rays. Dominici further developed filtration. His work in importance ranks next to the Curies in a scientific approach to the achievements of radium therapy.

Robert Abbe, in New York in 1905, was the first to use radium in tumors (a case of exophthalmic goitre). In France, Ouidin and Verchere, in 1906, reported results in the treatment of uterine fibromyomas, metritis and gonorrheal urethritis. They achieved cessation hemorrhage and of refractory discharges and the partial reduction of tumors.

Cheron, in 1909, obtained better results with the use of radium in gynecology than any other investigator before his time. He used larger doses and better filtration.

In the United States, Duane in 1908, first suggested using radium emanation directly within malignant tumors. Janeway, in New York (Memorial Hospital), developed the method and made use of bare glass tube implants of radium emanation in tumors. Failla, (Memorial Hospital), in 1920, designed equipment for making glass tubes for permanent implants of radon. In 1926, Failla developed small gold seeds for permanent implantation.

In 1914, Kelly and Burnam, Baltimore, reported excellent results in a large series of cases of uterine hemorrhage of benign origin treated with radium. In 1915, they reported results in carcinoma of the uterine cervix and vagina. Their work undoubtedly popularized radium therapy in this country and it was immediately taken up by gynecologists throughout the land.

In gynecology, radium therapy has perhaps reached its most effective development. It is our best weapon to combat cancer of the uterus, both cervical and fundal. Its use in treating vulval and vaginal cancers has not come up to our expectations. It is used extensively in cases of essential menorrhagia and in uncomplicated uterine myomas. Radium in gynecology has been a "life saver" in many conditions that needed treatment when a severe operation could not be tolerated by the patient.

At the Barnes Hospital we have been using radium in the treatment of benign and malignant growths of the uterus since 1917. Rarely do we operate upon cases of cancer of the cervix uteri. However, we do operate upon cases of cancer of the fundus uteri. In our published reports (Newell and Crossen) we have shown a five year cure in cervical cancer of about twenty-four per cent, and in corpus uteri cancer a five-year cure of better than sixty per cent.

Our results in the past five years in treating uterine cancer by radium has been better than the results in previous years, due, in part, to the fact that all of the cancer cases are better studied and a well planned technic of implanting the radium is carried out by one well versed in cancer pathology and the effect of radium on the tissues of the pelvis. All of our cancer cases, in addition to receiving radium, receive deep x-ray therapy to the pelvis and lower abdomen in a systematic manner. The gynecologist implants the radium and the radiologist gives the x-ray therapy. They both work hand in hand in carrying out the treatment. After the initial treatment is given the patient, it is necessary to see her from time to time in order that any recurrence that may be present can be treated. The services of a social worker are very necessary to see that the patient returns in due time. Dr. H. S. Crossen has stated in a recent editorial (Am. J. Surg., March 1935) as follows:—

"The most important advance in the treatment of cancer of the cervix is the shift from operation to irradiation. This change has been going on gradually for some years; and is now almost complete among the leaders in gynecologic work. Even those few who still employ radical operation do not depend on the operation but use irradiation also in some form to reach the outlying cancer cells.

Despite the variety of classifications used and the consequent difficulties of critical comparison of results from operation and from irradiation, there is already apparent a definite statistical balance of cure-rate in favor of irradiation. And that is only part of the story. The radical operation has been developed practically to its limit, while irradiation is young and still developing rapidly. Again, irradiation can rescue many patients who have passed far beyond the reach of operation. Again, when depending on radical operation it is necessary in even the earliest case of cancer of the cervix to subject the patient to very grave risk, whereas with irradiation the patient is given a better chance of cure with much less risk in all stages.

My conclusions in this important matter were not reached hastily, but through critical study and a long experience of practical participation in radical operative treatment and in radical irradiation treatment for the disease. I deal with the subject from the standpoint of the practicing surgeon, anxious to give his patient every possible chance for life. There should be no antagonism of the surgeon to radium. It is simply another helpful instrument added to his armamentarium.

Effective irradiation treatment of cancer of the cervix is serious and hazardous surgical work. The shift of instruments from the knife to the more deeply penetrating radium does not lessen the surgical responsibility. If the dosage employed is too large for the particular condition present in the pelvis, serious injury to important organs may result. If the dosage is too small, the patient is not given the chance for life to which she is entitled. The maximum dosage possible in a given case depends on a number of factors, including the location and size of the cancerous mass, the amount of involvement of each of the organs in the immediate vicinity, the extent and direction of ulceration, and the amount of fixation of the bladder and rectum by the carcinomatous infiltration. The accurate determination of these conditions and the utilization of that knowledge in effective radium treatment, requires a large amount of experience and skill in pelvic work. While in some situations the radiologist without special local knowledge may give effective radium treatments, in carcinoma of the cervix conditions are such that the most effective treatment can be given only by one with special gynecologic training as well as radium training. His special knowledge of pelvic anatomy and pathology and his training in accurate pelvic palpation and diagnosis must all be utilized in the supreme effort to reach the marginal cancer cells with effective radiation.

There is a tendency among the inexperienced to regard radium lightly. This tendency is encouraged by some of the radium-rental instructions given by commercial companies, which presume fit the recipient for the safe and effective use of this dangerous instrument. It would be as reasonable to suppose that instructions issued with a scalpel would fit the recipient to use it safely and effectively in the irradiation of cancer. Radium is as potent as the knife, and in experienced hands may produce as disastrous results, either in the form of injury to adjacent organs or as failure to save a life which might have been saved by effective use."

I concur in everything stated by Crossen in his editorial. I have been associated with him for twenty-five years in the teaching of gynecology and have followed his work in every detail. Much of the cancer work we have done together and our results have been published.

It is interesting to note that as far back as the year 1910, shortly after radium was introduced in medicine, Wickham wrote as follows:—

"Radium therapy is indeed a very complex and delicate weapon to handle. Long and thorough personal experience is necessary, in order to turn it to the best account, to learn to distinguish accurately the cases for which it is most suitable, and to avoid injuring patients, either by badly proportioned doses or by depriving them of other therapeutic measures, which might prove more successful."

Radium therapy is severely criticized by many physicians because they do not understand its principle. They have applied radium once or twice, or have heard of some case that was unfavorably treated and the patient had either a vesico-vaginal or recto-vaginal fistula, or she died shortly after receiving radium treatment and they very readily condemned its use. Today, radium is unquestionably the best instrument we have to combat cancer, but it should be used only by those trained in its uses. Just to apply radium to a cancerous growth is of little or no avail. I doubt if a single case of cancer was ever cured by such a procedure.

There should be centers created with proper equipment and trained personnel where cancer cases can be sent for systematic and vigorous treatment. The treatment of cancer today is one of our big problems in medicine and we must not slow up in our efforts to do something to stop the heavy toll of life that it claims each year.

105 Lister Building

Prostatism*

By HUGH T. BEACHAM, B.SC, *M.D.*, M.SC., F.A.C.S.
From Louisiana State University Medical Center
Department of Urology
NEW ORLEANS, LA.

Prostatism is a rather inclusive term, implying "a morbid state of mind and body due to prostatic disease." In its general sense it includes: traumatic states, specific and nonspecific (non-Neisserian g.) prostatitis, both acute and chronic, and prostatic leiomyomata, sarcoma, cysts, calculi, Koch's infection, and lues, as well as the three most frequent causes of prostatic obstruction to the urinary stream; viz., hyperplasia of the prostate gland, median bar formations, and carcinoma of the prostate. If time permitted we might discuss each of these conditions, but everyone of them is of such importance and interest that its proper consideration would require a separate lengthy dissertation; consequently, we must accept the word *prostatism* as it is used in the urological world, as being limited to include only the three most frequently encountered causes of prostatic obstruction to urination. For a later date we must leave the remainder although there is a great temptation to mention rhabdomyosarcoma of the prostate, prostatic echinococcosis, Leishmania donovani in the prostatic fluid of patients with kala-azar, leiomyoma associated with painful priapism, and other such rarities. Due to the common association of chronic prostatitis with hyperplasia it will be well to dwell briefly upon that condition, and in doing so those medical men who like to think of prostatism as signifying a chronic inflammatory state of the prostate will be pleased.

Symptoms and Signs of Obstruction Caused by the Prostate

As in all other medical conditions, a detailed history and thorough physical examination are a prerequisite for successful management of urological problems. The case of the obstructing prostate is certainly no exception. The age of the patient is of significance in that approximately 10 per cent of all men under fifty years of age have hyperplasia of the prostate gland. Between the ages of fifty and sixty, 20 per cent are affected; between the ages of sixty and seventy, 30 per cent; and above the age of seventy, about 50 per cent have this difficulty.

A history of nocturia, difficulty in starting and stopping micturition, and diminution of the calibre and force of the urinary stream should cause the physician to investigate fully the condition of the prostate. Frequency of urination (ofttimes unassociated with burning) and frequently dribbling of urine should support the suspicion of prostatic enlargement. Painful micturition is present only when there is an accompanying urethritis or the sequelae of such a condition as in acute prostatitis and prostatic abscess, which present an increased frequency as well as difficulty in avoiding the urine. In acute prostatitis there is a moderate or high elevation of the temperature, which is maintained at a rather constant level during the severeness of the condition, while in prostatic abscess the usual rise and fall of temperature common to the septic processes is noted. In passing it is well to state that such conditions may arise from or accompany a hematogenous bacterial urinary infection as distinct from a specific or "non-venereal" urethritis. Benign enlargements of the prostate give rise to no penile pain during the passing of the urine; neither does the gland containing tuberculous deposits; but the pain in the penis is present during urination frequently in cases of prostatic malignancies if there is direct infiltration of the urethral mucous membrane.

---

*Read before the Tri-County Medical Society, Tylertown, Miss., Jone 8, 1937.

Determining the Amount of Residual Urine; PSP Test

Having obtained the patient's history and examined him thoroughly excepting the prostate, the physician will then wisely have the patient cleanse the glans penis and meatus gently with a weak solution of soft soap and water, rinsing and drying he organ adequately. The patient then micturates into two glasses, the gross characteristics of the contents of each glass being noted as was the act of urinating itself, during which one observes the size and force of the stream and the starting and stopping of same. After the patient states that he has emptied his bladder, the distal portion of the penis is sponged with alcohol and a sterile No. 24 French Olive Tip catheter is passed as aseptically as possible through the urethra, the possibility of strictures being clinched or ruled out thereby and the residual urine in the bladder obtained. If this amounts to an ounce (300cc.) or more, the catheter is left in place until the "phthalein test" has been performed. I prefer to administe r intravenously 1 cc. of a solution of monosodium phenolsuphonphthalein and have the patient drink about eight ounces (approximately 250 cc.) of water. The appearance time of the dye is noted, and is normally found to be about 2 to 5 minutes. At the end of the first hour all of the urine collected is diluted with water to 1000 cc. (sufficient 5 per cent sodium hydroxide solution having been added to the original receptor to make the urine strongly alkaline) and examined in the colorimeter to ascertain the percentage output, which is usually 40 to 60. After the second hour has elapsed, the percentage output is obtained for that period of time, which averages 15 to 25. The percentage output of the two hours is then known, and should not be less than 50 if there is no kidney damage. Persons having a residual of less than one ounce are not required to keep the catheter in place for the PSP test unless they have difficulty in micturating, which would interfere with the test. Those who have huge amounts of residual urine are often permitted to keep the catheter in as an indwelling one.

Examination of the Prostate

The prostate gland is then examined rectally by digital palpation, its size, shape, consistency, and degree of tenderness being noted, as is the state of the seminal vesicles. Far too often the busy practitioner neglects this important part of his physical examination. It only takes a few minutes to examine this frequent site of focal infection, and many missed diagnoses would readily be correctly made if only the medical man would take the time to palpate the prostate. One would not think of saying that he had examined a man without ausculting the heart, and one should not fool oneself by thinking that he has examined a man whose prostate gland he has not felt. This statement is made with reference to all ages. A finger in the rectum is worth fifty on any other part of the body in many cases. The acutely inflamed organ presents a much enlarged, smooth surfaced prominence in the rectum, while if any abscess is present a softer area can usually be detected. The carcinomatous prostate presents rounded areas of densely infiltrated tissue giving the so-called "woody or stony feel," in contradistinction to the elastic uniform resistance of the gland of hyperplasia; the whole gland is fixed and immovable, and in advanced stages distinct infiltration of the lateral pelvic lymphatics may be felt extending laterally from the affected organ. One must not mistake the hard nodules felt in a prostate containing calculi for carcinoma. With calculous disease the gland is not fixed and is only slightly enlarged, whilst on gentle pressure by the examining finger the calculi may be palpated to grate upon each other. During the passage of a catheter through the prostatic urethra distinct grating may be felt if any calculus has ulcerated the urethral wall.

Absence of any enlargement or evidence of prostatic pathology as determined by rectal digital palpation does not mean that the structure is innocent. A young doctor complained of sciatica. The attacks recurred after extraction of the roots of several teeth; therefore, he was referred to me. His urine was free of pus, and the prostate was of physiological size, shape, consistency, and degree of tenderness. Its secretion was negative except for a few streptocococci. In the meantime, similar organisms obtained from the affected teeth had been injected into rabbits, and these animals subsequently suffered sciatica. Massages of the prostate gland of this young man resulted in dramatic relief. He continued treatment and in a remarkably short time was cured.

It is imperative that both wet and dry preparations of the prostatic and seminal vesicular secretions be studied grossly and microscopically. Gram staining should be done routinely. In obscure cases the physician will wisely withhold definite statement that the prostate is not at fault until repeated examinations have been made. Furthermore, ofttimes the gland presents obstruction to the urinary stream without being enlarged rectally. The presence of median bar formations, median lobe hypertrophies, and small lateral lobe enlargements can be ascertained only by means of the cystoscope. I have in mind many excellent examples, one, a man of 45 years, presented no evidence of prostatic hypertrophy as determined by digital palpation yet he had a residual of 650 cc. of urine due to median lobe hyperplasia. A trained cystoscopist should examine every person who has persistent pyuria, hematuria, or a bladder residual of an ounce or more of urine. Cystoscopically he can determine the presence or absence of intra-urethral and intravesical encroachment or both by the prostate. Furthermore, he studies the condition of the posterior urethra and bladder, noting the state of its musculature and mucosa and measuring its capacity. Causes of bleeding and pyuria are searched for and as a result the presence or absence of stones, diverticula, new growths, ulcers, et cetera, are clinched. In this connection, I must say that the cystogram is of considerable value in the small percentage of cases in which cystoscopy is contraindicated; however, it does not have the value in the diagnosis of enlargements of the prostate that some roentgenologists would have us believe. In cases of advanced obstruction to the urinary outlet, the procedure is of marked practical importance.

Hyperplasia of the Prostate Gland

Prostatic hyperplasia or so-called "hypertrophy" is a pathological enlargement of certain portions of the gland. Because of its anatomical location, this growth brings on progressive urinary obstruction and results in secondary changes of back-pressure in the bladder, ureters, and kidneys. Secondary infections commonly occur and, separately or jointly, obstruction and infection produce the clinical picture of multiform disturbances of micturition and embarrassment of renal function.

The etiology of hyperplasia is best explained upon an endocrinal basis. Much interesting work has been and is being done on this subject, but time prohibits even a brief review at this time.

From the gross anatomy view the common types of hyperplasia are: firstly, bilobed or bilateral; secondly, trilobed or bilateral and "median"; thirdly, unilobed, usually posterior ("median" or commissural of Randall, an enlargement of the anterior lobe alone rarely occurs, subcervical of Albarran or the subtrigonal of Home); fourthly, confluent or ring type, formed by the fusion of lateral, commissural and anterior lobes; and, lastly, the quatlobed, the four lobed enlargement. The "median" lobes are not to be confused with median bar formations. The former are due to hyperplasia of the prostate gland; the latter arise as the result of chronic irritations. Median lobes may be associated with contracture of the vesical neck; practically always are median bars.

The signs and symptoms of urinary obstruction brought about by prostatic hyperplasia have already been enumerated. Superimposed upon them may be those of its complications such as cystitis, pyelonephritis, sepsis, etc. As has been mentioned there is often an associated chronic prostatitis, which will respond to massages, irrigations, instrumentation, and other non-operative measures. It goes without saying that this should be cleared up in every case before surgery is brought into action. However, the general practitioner should not have a feeling of false security about cases in which the urinary difficulty responds to such treatment. If he does, he is not only not being true to himself but fails in his full duty to the patient. After the prostatitis has subsided if it fails to respond to therapeusis, the patient should be placed in the hands of an expert urologist for cystoscopic investigation.

Granting that the patient has prostatic hyperplasia requiring surgical intervention, the question arises, "what type of operation is indicated?" To this the rabid resectionist will answer "transurethral resection"; and the resectional antagonist will declare "suprapubic prostatectomy, by all means." Conscientious urologists, however, will admit that the type of operation depends largely upon the individual case. I firmly believe that huge glands are best treated by suprapubic cystostomy followed by prostatis enucleation. In the cases of smaller ones, transurethral electroresection is the procedure of choice. It is true that fewer persons are being allowed to go without proper therapy until their prostates have reached an enormous size, and that is the reason that in a certain very limited number of institutions practically no prostatectomies are being done. In my practice, I perform about three transurethral resections to one prostatic enucleation. This, of course, includes the work at Charity Hospital as well as in the private institutions.

Vaso-Section

It is the general concensus of opinion among urologists that a bilateral sectioning of the ductus deferens should be performed before resection is done or at the time of the suprapubic cystostomy. The purpose of such a procedure is to insure against the development of an epididymitis. The Germans were interested in determining if this procedure alone would affect the size of the prostate gland, but they soon found that appreciable states of hyperplasia were not changed. I have been questioned often as to the sexual effect brought about by ligation or severance of the vasa, and have replied that the libida is temporarily increased but does not remain so.

Median Bar Formations

In median bar formations and contracture of the vessical neck, we are dealing with a condition of fibrous tissue formation rather than hyperplasia. These conditions can be explained on a basis of low-grade chronic irritations. Quite frequently there is no associated increase in the size of the prostate either rectally or intra-urethrally. These patients, as a rule, complain of much greater frequency of urination and have far less residual of urine than do those presenting moderate or marked hyperplasia of the prostate without cystitis. There is complete unanimity of opinion among qualified urologists that these cases are best treated by the transurethral approach.

Prostatic Malignancies

Sarcoma of the prostate gland occurs at the extremes of life and so infrequently that we shall not consider it here. Carcinoma, on the other hand, is far from rare, being present in about 10 per cent of all glands studied microscopically. Unfortunately, in the early stages the diagnosis is certainly not easy. If one can make the diagnosis by rectal digital examination, the case is one too far advanced for enucleation of the organ. In cases of carcinomatous prostates presenting urinary obstruction, transurethral resection must be employed and the patient given courses of deep roentgen-ray therapy; however, these procedures are far from curative in practically all cases, and the best that can be hoped is temporary relief. A limited number of persons who have rapidly growing malignant prostates with marked cystitis will require suprapubic cystostomy. Osseous metastases occur late, and about these we can do practically *nil*. Hemorrhage is less pronounced as a complication of resection for carcinoma than in cases of hyperplasia. Too, the patients stand the procedure quite nicely as a rule.

Conclusions

1. Thirty-five per cent of all men over fifty years of age present prostatic obstructions to the urinary stream. About ten per cent of all men under fifty years of age have hyperplasia of the prostate gland.
2. The importance of a careful scientific examination of the prostate with tests of renal function can not be over-estimated.
3. Any person presenting persistent pyuria, hematuria, or a bladder residual urine of one ounce or more should be given the benefit of cystocopic examination.
4. Chronic prostatitis should be cleared up by massages, irrigations, instrumentations, and other non-operative measures before surgical procedures are employed.
5. Transurethral resection is indicated in cases of median bar formations, contracture of the vesical neck, median and lateral lobe "hypertrophies", and small to moderate enlargements of the prostate due to hyperplasia.
6. Huge glands are best enucleated due to dangers of sloughing, infection, and hemorrhage.
7. Carcinomatous prostates should be resected transurethrally and the patient given the benefit of deep irradiation.

8. Bilateral vaso-section is a minor procedure from the operative point-of-view, but of major importance to the patient. It should be performed regardless of the route of surgical attack upon the prostate whether transurethrally or suprapubically.
9. Suprapubic prostatectomy is practically always best performed in two stages, a cystostomy being done preliminary to the enucleation.

◆

"I am a little thing with a big meaning. I unlock doors, open hearts, dispel prejudice. I create friendship and good will. I inspire respect and admiration. Everybody loves me. I bore no one. I violate no law. I cost nothing. Many have praised me, none have condemned me. I am pleasing to those of low and high degree. I am useful every moment of the day, I am COURTESY."

Tuberculosis From the Standpoint of the Gynecologist

By LUCIEN A. LEDOUX, M.D., F.A.C.S.
NEW CRLEANS, LA.

Most text books make but a passing reference to gynecological tuberculosis and, other than to devote a few lines to the pathology of the fallopian tubes and to mention the fact that the uterus and ovaries are resistant and immune, that is about all that is said on this subject.

In recent years, the general subject of tuberculosis has been more intensively studied and much progress has been made in the earlier diagnosis of the disease and in the development of gratifying therapeutic measures.

The endocrinology of the female organs and its application in the past few years has reached a point where it is now accepted as the basis for the study and understanding of gynecological problems, both functional and organic. Researches in other fields have likewise given us much information which can be intelligently applied as adjunct treatment of tuberculosis in the female.

About fifteen years ago, I began to study the influence and effects of toxemias upon menstruation and became interested in the gynecological phase of tuberculosis. My conclusions based on clinical observations were that the amenorrhea and oligoamenorrhea in tuberculosis was due largely to the destruction of the ovarian harmone by the tuberculo-toxin and the absence of the menstrual phenomena was in proportion to the intensity of the toxemia and not as was formerly supposed and taught, due to an attempt on nature's part to conserve blood loss in the interest of the patient.

From clinical experience, we have all observed the suspension or reduction of the menstrual period due to some acute infectious disease as in pneumonia and in acute intestinal toxemia and as a result of these clinical observations, I felt that the suspension of such an important phenomena alone or in conjunction with some other gynecological problem would most certainly affect the tuberculous woman, so I set out to examine into the possible affects that these added problems might have upon the patient, knowing very well that a patient who is not menstruating regularly, is nervous and restless and is not resting; that a vaginal discharge is uncomfortable and annoying and that these patients deserve study and assistance not only as regards the pulmonary picture but the general health as well.

I discussed with the late Dr. Wallace J. Durel some questions that had arisen in my mind regarding this subject and he very kindly placed at my disposal his patients in the Dibert Memorial of the Charity Hospital. I had occasion to question approximately ninety-eight patients, going into their history into detail especially as regarded their menstrual history.

The salient points brought out were briefly these: patients gave undernourishment or a neglected cold as the cause of their present illness; most histories, invariably, showed that these patients had suffered in some degree from irregularity or diminution of their menstrual period for some months before the true nature of their disease was discovered. It was typical of most histories that the total absence of menstruation was present in those patients showing acute pneumonic pthsis and furthermore the clinical picture both systemic and in the chest became markedly active on or about the time that the patient was due or would menstruate. This was evidenced by a rise in temperature and pulse rate, accompanied by diminution or total absence of expectoration before or during the period with frequent observation of blood-streaked sputum and excessive expectoration in the post-menstrual period with an increased tendency to hemoptysis at that time.

Unquestionably the increased metabolism of the female at that time and the aggressive bio-chemical changes, typical of this period, accounts for the aggrevation of the symptoms and signs and one should guard against and be prepared for a pulmonary hemorrhage at this stage. The further observation was made that the reappearance of menstruation was compatible with the systemic and local recovery of the patient and in most cases this favorable change can be accepted as of very great prognostic value, so much so, that the entire pulmonary picture which points to recovery is accompanied by gradual and progressive restoration of the normal menstrual picture.

In a previous communication, several years ago, before Trichomonas-Vaginalis became a fashionable disease and as many methods of treatment were devised as the number of Trichomonas could be shown in a smear, I pointed out that this type of infection was found most frequently in individuals who are in a state of sexual rest as is in the tuberculous woman, and though a medical detail, the presence of this infection is too often neglected at the expense of the patient's comfort and well being. Investigations into this phase reveal that over 60 percent of the tuberculous patients examined complain of irritating vaginal discharges, which was adding to their restlessness and discomfort and a large percentage proved to be due to this parasite. Prompt and effective measures directed to the eradication or the amelioration of this annoying complication has resulted in a more restful patient.

Tuberculosis of the fallopian tubes is always secondary and in my surgical experience, of approximately twenty years, I have had two cases. In other instances, when I have performed pelvic operations on tuberculous women, I have studied the ovaries carefully and have not found a higher incidence of cystic degeneration than is ordinarily met with and this observation would seem to indicate that there is some foundation for the belief that the tuberculo-toxin is destructive to the circulating harmone and not to the follicle itself. The fact that the menstrual cycle reappears in the improved stages of this disease further serves to substantiate the belief that the harmone is affected and not the follicle.

It has long been said, without much contradiction, that the sex appetite was increased in the tuberculous woman. I want to say that excepting in the hyper-sexual woman, this is pure fiction. The fact that she is suffering from a toxemia with its accompanying lassitude and discomfort and as her normal biological make-up is dominated by the need of rest and the mental acceptance of her situation, these all combine to diminish or eliminate the sexual appetite. The majority of the patients interviewed were all in accord on this point.

Another observation is the frequency of a low grade cystitis which is usually intermittent and usually observed one or two days before the menstrual period, whether the period appears or not. Frequency, with or without burning is the chief complaint and in the cases that I have studied, B. Coli was the causative factor. This annoying complication usually responds quickly to the usual medical treatment.

As physicians we all have a great responsibility. This is acknowledged and often I wonder whether we are doing justice on occasions to our patients and by ourselves. I could hardly bring this point out more forceably than by taking from my files a case report which is typical of a number on record.

Miss T. N., age 18, consulted me in 1934, complaining of amenorrhea for about five or six months. In her past history, she mentioned a tonsillectomy during childhood and an appendectomy five years ago.

Her menstruation began at thirteen years of age, was normal and regular in every respect until two years ago, when she contracted a cold and developed a cough which had persisted since that time. She stated that she had lost about eight pounds in weight and complained of a feeling of lassitude and tiring easily on exertion. Her expectoration was profuse in the morning. She had kept a record of her temperature for six or seven weeks and it had ranged from 98 4-5 to 99 3 5. This patient had been under treatment by her physician for about one year, for a persistent cough and she stated that neither her lungs or sputum had been examined nor had she been x-rayed. She consulted me because of her failing menstrual periods.

This patient was subjected to the routine examination, which revealed that she was underweight and anemic and moist rales were found bilaterally in the apices of both lungs. Pelvic examination revealed a uterus normal in size with no evidence of cystic ovaries. The sputum showed streptococci, pneumococci and numerous staphlococci and acid-fast bacilli.

She was x-rayed the following day and the report showed an active caseous bronchial pneumonia with marked reactions in the hilar and supra-apical regions. The diagnosis having been made, the reason for her menstrual disturbance was very easily explained. On further questioning, this patient stated that she had noticed an increase in temperature at or about the time her menstrual period was due and it was the only time of the month at which she observed blood-streaked mucus.

This patient was placed in the care of an internist and four or five weeks later she had a severe pulmonary hemorrhage from the left side and two or three months later a moderate hemorrhage from the right side. After eighteen months of rest and adequate therapy this patient's systemic as well as local condition has improved to the point where she has been classed as an arrested case and I am happy to state that the gradual reappearance and regularity of her menstrual cycle has been one of the conclusive prognostic signs of her recovery.

CONCLUSIONS

From these observations it is apparent that the all important essential to the treatment of this disease, namely, rest, is frequently interfered with by the instrusion of a major or minor disturbance in the pelvic organs, therefore, nervousness is a common associated symptom and one can hardly say that a nervous patient is one at rest.

The menstrual history is important and at times it may point the way to a diagnosis. The type and character and the presence or absence of the period will also have its repercussion in the chest picture and finally, the re-establishment of the cycle is of definite prognostic value. While it is true that exceptions go to form the rule, it is my opinion, based on observations, that as goes the menstrual picture, so goes the patient in this disease.

The ovarian harmone is affected by the tuberculo-toxin. Excessive sexual appetite is a myth. Tubercular salpingitis is comparatively rare. External genital lesions and vaginitis, cervicitis and cystitis should be treated energetically. The use of supportive harmone therapy is suggested in the arrested stage.

We should employ every weapon at our command to strip the patient of any and every disability so that she can be placed in the most favorable condition to combat her local problem.

1205*Maison Blanche Bldg.*

* * *

"One hour of thoughtful solitude may nerve the heart for days of conflict."—Percival.

Nutritional Anemia*

By Robert A. Strong, M.D.
From the Department of Pediatrics, School of Medicine,
Tulane University of Louisiana
New Orleans, La.

Nothing has come out of the studies of nutrition which has been more important than a realization that in addition to supplying fundamental food elements as well as accessory food factors, we are obligated to prevent primany anemia due to copper and iron starvation. Consequently, there has been a recent widespread interest in what is spoken of as the nutritional anemia of infants, and a growing literature discusses how it occurs and the means by which it can be prevented.

It has long been recognized that both breast milk and the milk from the cow, upon which an infant depends for all of its nutrition, are notably deficient in iron. So, if iron is not introduced into the infant's diet in the early months of life, an anemia from iron starvation is likely to develop. This is so well known that in all of the epoch-making studies of the anemias in recent years, the animals used in the experiments were first made anemic by feeding them an exclusive milk diet.

There is recognized a condition which is spoken of as the physiologic anemia of the newborn, which is said not to require any treatment, and which is seen in the first few months of life. The explanation offered for its production is that in the fetus, blood formation takes place widely throughout the reticulo-endothelial system, red cells being produced in the liver, spleen, and lymphatic tissues generally, and sometimes even in other organs, such as the kidney, in addition to the bone marrow. This extramedullary hematopoiesis ceases at or shortly after birth, and throughout infancy and early childhood. bone marrow is universally of the red type; nevertheless, embryonic depots may be recalled into activity should the necessity for rapid blood regeneration be sufficiently great, as in a severe anemia.

The infant *in utero* is living in a medium of low oxygen tension, exactly as in adults who have to live at high altitudes. It is necessary, therefore, for the red blood cells, the carriers of oxygen, to be present in increased numbers so that tissue respiration may be maintained adequately. After birth, when the child breathes an atmosphere having a much higher oxygen tension, many of these cells become redundant and are, therefore, destroyed, with the consequent formation of bilirubin and not infrequently the development of jaundice.

Actually during the later weeks of intrauterine life, there is a diminution in the number of red cells and the percentage of hemoglobin, but in spite of this, the normal infant at birth may show a red cell count amounting to 7,000,000 per c. cm. and a hemoglobin percentage of 120 or more. The fall in hemoglobin and red cells, although rapid in the first week or two of life, is not limited to that time, but continues slowly for the first six weeks of life, when the low point is reached. Further, the fall in hemoglobin is proportionate to that of the red cells, so the color index remains normal. In this way, there results a "physiologic anemia of the newborn."

This anemia is probably due to the failure of the marrow adequately to adapt itself to the requirements of the rapidly growing child, and since this growth factor is of even greater importance in premature infants, the fall in hemoglobin is greater in them, so that in the "anemia of prematurity," the hemoglobin percentage is not infrequently as low as 60 or even 50.

---

*Delivered before the Mississippi State Pediatric Society, Meridian, Mississippi, May 10, 1937.

Copper and Iron Deficiency: This physiologic anemia, which under most circumstances clears up, does not require any treatment *per se*. Recovery, however, does depend upon whether or not substances for hemoglobin development are present in adequate amounts in the infant's body or if they are supplied in the food. If neither of these conditions is fulfilled, then a nutritional anemia may develop. As has been said, both human and cow's milk, on which we usually depend for the nutrition of young infants, contain only minute quantities of these very essential substances. and cow's milk contains even less of them than human milk, notwithstanding the fact that its iron and copper content is believed to increase when it is stored in metal vessels. In this connection, the evaporated milks and the dried milks are said to acquire even a greater amount of iron and copper, because of the process of drying the milk on heated metal rollers, and in the evaporation of milk in the vacuum pans. Moreover, when evaporated milk is irradiated, it has an opportunity of further increasing its copper and iron content as it slowly passes down in a thin film over the metal container in which it is irradiated. However, just how much iron and copper is acquired from the contact with metals is still a matter for conjecture, and is not at all dependable.

The frequency of nutritional anemia may vary in different districts and is explainable by the variability of the copper and iron content of the diet of the mother and the age when iron and copper are introduced into the diet of the baby from sources other than milk. The only reason why all infants do not become anemic in the lactation period, is that it is fairly well established that an infant acquires iron and copper in the last three months of intrauterine life, and that both metals are stored in the liver. While the liver has always been generally regarded as the chief site for the storage of iron during the fetal period, recent evidence indicates that of equal if not of greater importance is the available iron which is released from the hemoglobin in the readjustment of the blood during the first six weeks of life. The hemoglobin content of the blood of the human infant at birth is exceedingly high, averaging from 22 to 23 gm. per hundred cubic centimeters, and during the first few weeks of life there is a rapid decrease in the value, a "physiologic anemia" developing. A level of from 10 to 12 gm. of hemoglobin per hundred cubic centimeters of blood is usually observed by the sixth to the eighth week after birth. The amount of iron released by the destruction of hemoglobin during this period has been calculated and has been found to be approximately 250 to 300 ing. Since only 50 to 75 mg. of "extra" iron is lost in the excreta during this period, it is obvious that the iron from the destroyed hemoglobin is efficiently conserved and that this iron, rather than stored liver iron, forms the major reserve supply of this element in the human infant. This stored iron and copper are only enough, however, to provide for the infant's needs for the first few months of life, and if iron and copper from other sources are not supplied, we may certainly expect a nutritional anemia to develop.

It is equally important that a mother receive sufficient iron during pregnancy. In addition, if an infant is born prematurely or is one of twins, the storage is inadequate and under such conditions the anemia develops early in infancy, and in extreme cases may actually be present at birth.

Prevention: Nutritional anemia in infancy can, therefore, be prevented by insuring an adequate iron supply both to the mother during pregnancy and to the infant during the period of lactation, especially if the child is artificially fed, if it is one of multiple pregnancies or if there is any prematurity. From those who have investigated the subject, it is believed that the diet of the mother should contain from 15 to 20 milligrams of iron per day. It is probable that a large number of pregnant women do not obtain iron for two reasons: many obstetricians are known to restrict diet as a preventive measure against toxemias of pregnancy; in addition, economic conditions, particularly those in recent years, have made it difficult for less fortunate mothers to get enough to eat. It should be a practice, therefore, especially in mothers whose diets have been restricted by obstetricians who fear toxemia of pregnancy, to receive definite amounts of iron aside from that which the diet would be expected to supply.

For many years it has been thought that iron and ammonium citrate has had many advantages over other preparations of iron. It is soluble in water and seems to be assimilated and utilized quite readily. It was one of the most popular preparations of iron about twenty years ago, but was supplanted for a few years by other preparations. Apparently in the past five years, its popularity has returned, so that it should receive first consideration as a source of iron for the pregnant mother. Concerning the doses since its use in recent years, the opinion prevails that larger doses should be given than those ordinarily recommended. This preparation of iron may be administered to the mother in one of several ways, A suitable prescription would be as follows:

Rx

Ferri et ammonii citrati		3 vi (24.0 c.c.)
Syr. limonis		3 i (30.0 c.c.)
Glycerini		3 ss (15.0 c.c.)
Aquae	q.s. ad	3 vi (180.0 c.c.)

Sig.: Two teaspoonfuls three times a day.

The liquor ferri et ammonii acetatis, N. F. VI (Basham's Mixture), may also be used and the average dose of this preparation is a tablespoonful (15 c. c.) three times a day. This dosage provides the equivalent of 0.6 c.c. of the tincture of ferric chloride. This preparation should not be used unless it has been freshly prepared, Still another preparation is ferrous sulfate, which may be obtained at the present time in sugar coated tablets or capsules in a dosage of three grains, one of which may be administered three times a day.

During the past ten years, the importance of supplying iron-containing foods, especially to artificially fed infants, has been growing in popularity, and the first step in this direction was taken by introducing vegetables such as the time-honored spinach and egg yolk into the diet about the fourth or fifth month. It was not long, however, before it was discovered that these foods did not contain as much iron as was first thought. Moreover, what they did contain was too variable. In the case of vegetables, the iron content depended largely on the iron content of the soils in which they were grown; and in eggs, it depended upon the iron content of the food ingested by the hen. Before long spinach began to lose its reputation, and as one writer facetiously remarked "no more iron could be obtained from spinach by a baby than it could get by sucking a rusty nail." Attempts have even been made to increase the iron content of cow's milk by spraying the pastures with solutions of iron sulfate. Attempts have also been made to enrich the soil in which iron-containing vegetables were grown. It would be difficult, however, to control the iron content of the soil, because of the fact that torrential rains could easily completely nullify such effort.

While it is still desirable for others to administer vegetable purees such as spinach, carrots, beets, green beans, and combinations of all of them, they should not be relied upon exclusively to provide the necessary amount of iron to prevent nutritional anemia. It is far better to give the young growing infant known amounts of iron just as we do with the pregnant mother. To provide this, a prescription like the following could be written:

Rx

Ferri et ammonii citrati		3 ii (8.0 grams)
Aquae	q.s. ad	3 iv (120.0 c.c.)

Sig: One teaspoonful in three of the baby's bottles.

Another preparation known as Copperin, available in three grain capsules, is a useful combination of copper and iron, which may be used by emptying one of the capsules in each of three bottles a day. This supplies both copper and iron. Copper is now recognized as being a valuable adjunct to iron in the treatment of anemias. Copper, while not a constituent of hemoglobin, is said to act as a catalyst and enables the stored or ingested iron to be more perfectly utilized in the production of hemoglobin.

Opinion varies as to just when iron should be started, but it seems logical that it should be started about the third or fourth month, which is just about the time that the body storage of iron in the liver of the baby may be expected to become depleted.

Another way of anticipating and preventing nutritional anemia is by feeding a cereal* which has been especially prepared so that it will not only contain a liberal amount of vitamins A, B, C, and E, but so that one ounce will supply an adequate amount of copper and iron as well as other necessary minerals to promote growth and development of the infant. It has the advantage of being pre-cooked so that the starch cells have been completely burst, which insures digestibility by the youngest infant. It is only necessary to add milk to this pre-cooked cereal.

Treatment: If the measures which have been suggested for the prevention of nutritional anemia are followed, the need for the treatment of the condition will rarely ever occur. If it is encountered, because of the failure to appreciate precautions necessary for its prevention, treatment should be instituted as early as possible. The preparations of iron suggested for the prevention are equally efficacious in its treatment. The chief iron prevention used is iron and ammonium citrate, given just as has been suggested previously as a prophylactic measure to the pregnant mother. A suitable prescription to supply iron to the enemic child could be written as follows:

Rx

Ferri et ammonii citrati		3 ss (15.0 c.c.)
Syr. auranti		3 i (30.0 c.c.)
Aquae	q.s. ad	3 vi (180.0 c.c.)

Sig.: Two teaspoonfuls three times a day.

Certainly if everyone who accepts the responsibility for the nutritional guidance of a baby would appreciate the importance of preventing nutritional anemia by the means which have been herein suggested, there should be no anemia of this type.

---

*This cereal is known as Pablum and is manufactured by Mead Johnson and Company, Evansville, Indiana.

⁂

It would take 200 years for a man to run all of a vault lock's possible combinations.
—Copied.

Eye Injuries, Their Treatment and Sequelae*

By D. W. HAMRICK, M.D.
CORINTH, MISS.

The title of this paper may indicate to you a long and tedious dissertation, but in the main it will be a report of selected cases. For the past three years as Designated Oculist for the U. S. Workmen's Compensation Commission it has been my priviledge to see a rather large number of eye injuries on Government employees engaged in the construction of Pickwick Dam, Pickwick Dam, Tenn. These case histories are taken as the basis for this discussion, since there was subsequent complaint.

ABRASIONS OF CORNEA

This has been among the most frequent type of injury treated to date. It is defined by Wurdemann as a solution of continuity of the anterior layer of corneal epithelium. In this series it was caused by a great variety of means. It is characterized by marked pain, photophobia, profuse lacrimation, and a feeling as though some foreign body is in the eye. Local anaesthesia 2 per cent butyn, ¼ per cent pontocain, or ½ per cent metacain is used in all examinations since it enables the cooperation of the patient. The abrasion is demonstrated by the instillation of 2 per cent fluorescin, examining the eye after two or three minutes with a binocular loupe. If some time has elapsed since the injury without treatment, say 24-48 hours, infection may be superimposed on the picture and one may find an ulcer of the cornea instead of an abrasion, slugging pupil and beginning traumatic iritis. In this series there were 31 cases diagnosed as abrasions of the cornea. Routine treatment consisted of thoroughly cleansing the abrasion with boric acid douching or gentle massage of abrasion with blunt spud. Defect was then cauterized with 95 per cent phenol, ice compresses advised for 30 minutes q.4.h. until the next day, pad to protect eye from light, ung. bichloride mercury 1:3000 with light, ung. bichloride mercury 1:3000 with butyn or holocain to be instilled into culdesac for pain and antisepsis. Five of these cases suffered complications.

No. 1. Lost eight days from work from corneal ulcer.

No. 2. Lost 9 days from work from ulcer cornea and iritis.

No. 3. Lost 8 days from work from ulcer cornea.

No. 4. Lost 3 days, but no complication was demonstrated.

No. 5. Lost 6 days from keratitis.

Twenty-six abrasions of cornea recovered under routine treatment without loss of time from work.

BURNS OF EYEBALL

Burns of the eyeball may be from heat, light, electricity, or chemicals such as acids and alkalies. Again the cornea is the vulnerable point. Those burns caused by acids and alkalis are much more grave in their final consequences. Alkalis such as NaOH, KOH, ammonia give the worst prognosis due to their chemical and destructive action upon corneal tissue. They may cause diffuse haziness, purulent sloughing, perforations, iritis, hypopyon ulcer, or even panopthalmitis. Five cases of burns of the eyeball were treated in this series. Two of these were from hot cinders popping into the eye, two from cement, and one from hot cylinder oil.

No. 1. Hot cylinder oil in eyes, lost no time from work.

No. 2. Hot cinder, second degree burn cornea, lost 6 days from work.

No. 3. Hot cinder, second degree burn cornea, lost 12 days from work.

---

*Read before the Northeast Mississippi 13-County Medical Society at Houston, June 15, 1937.

No. 4. Cement burn cornea, lost no time from work.

No. 5. Cement burn cornea, lost 11 days from work.

Treatment in burns from hot cinders consisted of careful debridement and cleansing of corneal defect, then with a very small tipped applicator, after staining the defect with 2 per cent fluorescin, sterilizing the edge of the corneal defect with 95 per cent phenol. Atropine instillations 1 per cent q.4.g., cold compresses 30 minutes q.4.h., castor oil instillations q.4.h., holocain or dionin ung. for pain, hot compresses after 24 to 48 hours if the eye is still injected and corneal defect has not healed, light protection. The same treatment was instituted in case of cement burns except for douching out the culdesac thoroughly when first seen with 2 per cent ammonium chloride solution. All five cases reported as well.

CONJUNCTIVITIS (TRAUMATIC)

Conjunctivitis as a result of injury or trauma occurred 11 times in this series. Its cause was loose foreign bodies or irritants getting into the culdesae. It entailed no loss of time from work, and treatment consisted of careful examination of culdesac and cornea for foreign bodies under local anaesthesia, careful cleansing of eye with boric acid solution, antisepsis, light protection for a short time.

CONTUSION OF EYEBALL

The severity of contusions of the eyeball of course depends on the part of eye affected. Contusions generally speaking supply more to the eye lids and conjunctiva, and although to an inexperienced eye may look very grave, are usually of no great consequence. This condition occurred 6 times in this series with loss of time from work in only two cases.

No. 1. Contusion of conjunctiva, loss of time from work, 1 day.

No. 2. Contusion of conjunctiva with rupture of iris and hyphemia, loss of time from work, 21 days.

In this last case of course the rupture of iris and hyphemia was the disabling factor. This case was put on cold compresses 30 min. q.4.h., rest in bed, light protection, antisepsis, changing to hot compresses at the end of 48 hours. I put this patient on atropine instillations q.4.h.. but they are generally conceded to be contraindicated if the tear in the iris is large. Patient made an uneventful recovery.

CONCUSSION OF EYEBALL

Concussion of the eyeball usually comes from blows with some blunt object, and may be grave in its visual consequences. It may be manifested as rupture of iris, ciliary body, tearing of zonule, vitreous, cause sub-retinal hemorrhage or into the vitreous. Massive hemorrhage may cause extensive detachment of the retina, or into vitreous may be absorbed or may organize forming membranous bands in the vitreous. Concussion of the eyeball occurred 1 time in this series with loss of time from work 17 days. Hemorrhage in this case was into vitreous and apparently all absorbed in about one month, since the vision returned to normal. Treatment consisted of atropine instillations q.4.h., Sat. solution of KI by mouth three times daily gtts. ten, cold compresses for first 48 hours, hot compresses after that, rest in bed, light protection, small saline purges.

FOREIGN BODIES IN CORNEA

Foreign bodies imbedded in the cornea may be from a variety of substances, and the course and severity of symptoms depend somewhat on the nature of the foreign body. In my limited experience vegetable foreign bodies imbedded in the cornea are much more toxic to the eye, or more apt to carry infection and produce complications. In this series 35 patients were seen with foreign bodies imbedded in cornea. Twelve of these suffered complications and lost time from work.

No. 1. No demonstrable complication, lost 4 days from work.

No. 2. Complication, ulcer of cornea, lost 13 days from work.

No. 3 Complication, ulcer cornea, lost 3 days from work.

No. 4 .Complication, ulcer cornea, lost 6 days from work.

No. 5. Complication, ulcer cornea, lost 3 days from work.

No. 6. Complication, ulcer cornea, lost 12 days from work.

No. 7. Complication, ulcer cornea, lost 5 days from work.

No. 8. Complication, ulcer cornea, lost 4 days from work.

No. 9. Complication, ulcer cornea, lost 4 days from work.

No. 10. Complications, ulcer cornea, lost 9 days from work.

No. 11. Complication, ulcer cornea, lost 4 days from work.

No. 12. Complication, ulcer cornea, lost 6 days from work.

The treatment of complications in this group will be discussed under its appropriate heading. Routine handling of foreign bodies imbedded in the cornea consisted of thorough local anaesthesia, location of foreign body with good light from side and binocular loupe, careful removal of every vestige of foreign material, and metallic stain in the case of metallic foreign bodies, from the cornea. This is best done with point of needle or Graefe knife. Thorough cauterization of corneal defect with 95 per cent phenol. If the foreign body has been in the eye long enough to cause much reaction, say 24 to 48 hours, atropine instillations q.4.h. was routine, if not, mydriatic was not used. Cold compresses for 12 to 24 hours or the balance of that day. If the eye shows much injection and corneal defect was not healed by the next day, mydriatic was used and the case treated as a corneal ulcer. Vegetable foreign bodies imbedded in the cornea occurred four times in this group and all four were complicated by corneal ulceration and loss of time from work.

FOREIGN BODIES BENEATH CONJUNCTIVA

Foreign bodies beneath the conjunctiva are usually of minor consequence. This occurred 6 times in this study, and loss of time was reported in two cases.

No. 1. Foreign body beneath conjunctiva (vegetable) lost four days from work.

No. 2. Foreign body beneath conjunctiva (vegetable) lost 4 days from work.

Treatment in these cases consists of removal of the foreign body under local anesthesia, but is not always so easily accomplished. Antisepsis afterwards, and perhaps light protection, with shaded glasses.

FOREIGN BODIES IN SCLERA

The sclera is rather resistant to infection, and unless infection is carried to the deeper structures by the foreign bodies, they are usually of little consequence. Foreign body in the sclera occurred four times in this series with no loss of time from work. Treatment consisted of removal of foreign body, antisepsis, light protection for a short time.

PUNCTURE WOUNDS OF SCLERA

This injury is usually fraught with grave consequence to vision. Injury may be to iris, ciliarn body, zonule, lens, vitreous, choroid or retina. Due to limited time I will report two cases seen in this series.

No. 1. Puncture wound sclera 4 mm. from limbus by sliver of steel, with hemorrhage into the vitreous, x-ray showing a foreign body in the globe.

No. 2. Puncture wound at limbus with incarcerated iris and hyphemia.

The first of these cases was referred to Marine hospital at Memphis by Chief Medical Officer at Pickwick Sanitarium, and I was not able to get a report as to whether enucleation became necessary or not. The second patient was treated as a private case, since his injury was not service connected. The injury was caused by the end of a piece of wire striking the eye, puncturing the sclera near limbus. After thorough anesthetization, the protruding iris was grasped with forceps and after gentle traction snipped off. Patient put on atropine instillations q.4.h., cold compresses for first 72 hours, rest in bed, aspirin grs. 10 q.4.h., Ung. butyn and bichloride mercury 1:3000 for pain and antisepsis, compresses after first 72 hours for one hour at least three times a day. The globe was saved, but has cystoid cicratrix, and vision 20/100. Lost one month from work. Puncture wounds of sclera should be treated conservatively for a reasonable time, and if evidences of deep infection do not develop, even the presence of foreign bodies in the globe may be tolerated for a long time with good vision.

IRITIS (TRAUMATIC)

This occurred four times in this group of cases, as a complication of foreign bodies followed by ulceration of cornea, and for this reason will not be discussed as an entity.

LACERATION OF CONJUNCTIVA

The conjunctiva as a rule is fairly resistant to infection, and will stand rather severe tears and lacerations without serious consequences. This occurred 4 times in this series, and all lacerations of sufficient extent to leave the sclera exposed were sutured with silk, and general antiseptic regimen instituted without mydriatic. Only one of these patients lost time from work, and he lost 6 days from a ¾ inch laceration.

PTERYGIUM (TRAUMATIC)

Injuries to the conjunctiva on the basal side, particularly those near the limbus with marginal ulceration of the cornea are apt to be the exciting cause of the growth of pterygia. This occurred one time in this group of cases, but entailed no loss of time from work.

This usually occurs from some blunt object striking the eye with terrific force. It occurred one time in this series from a hot rivet being thrown against the eye, cutting through the upper lid and rupturing the globe. Immediate enucleation was done, with uneventful recovery. Loss of time 29 days, permanent disability with compensation.

RETINITIS (FLASH BURNS)

The mascular area of the retina is most sensitive to strong light, but the entire retina may be damaged if prolonged. Severe flash burns of the retina are accompanied by great discomfort, and marked chemosis of conjunctiva and lids. There were two cases of this type treated in this series.

No. 1. Mild flash burn, oxy-acetylene, no loss of time from work. Required only protection from light by very dark glasses for a few days.

No. 2. Severe flash burn of retina, oxy-acetylene, required hospitalization for five days, ice compresses, light protection, dionin for pain, and general antisepsis.

Many of these cases suffer a large central scotoma permanently, and some may even go on to optic atrophy with total blindness.

ULCERS OF CORNEA (TRAUMATIC)

Ulceration of cornea occurred 14 times in this group. Ulcers of cornea may of course be endogenous or exogenous in origin. Those in this series were all exogenous occurring as complications of either abrasions or foreign bodies imbedded in the cornea, complicated by infection. All of them lost time from work, the time lost varying from 3 to 21 days. Treatment in all cases consisted in the main of thorough curettement of slough under local anaesthesia, followed by thorough cauterization of corneal defect with 95 per cent phenol, tropine instillations q.4.h., hot compresses, rest in bed, ung. of holocain or dionin instilled in culdesac as needed for pain, aspirin grs. ten q.4.h. Foreign protein injections intramuscularly were given every other day in the more severe cases to stimulate leucocytosis. A variety of cauterizing agents of course may be used in these cases, such as fused silver nitrate, fused trichloracetic acid, or actual cautery. In hypopyon ulcers actual cautery is to be preferred.

UVEITIS

This, of course, is one of the gravest of eye complications following injuries, being especially likely to occur after penetrating wounds of the sclera in the region of the limbus. This occurred one time in this series, and entailed loss of time of 106 days, the final result being a practically blind and potentially dangerous eye. Treatment of this complication is so varied that I will not discuss it here. Enucleation is the treatment of choice in many of these cases where the patient has a good eye on the other side.

In conclusion, although this paper is too lengthy for a meeting of this kind, yet it is very incomplete. The results in this series are better than those seen in private practice due to one fact: the cases were all referred promptly after injury occurred. As general men, if you are doubtful as to what to do for an eye injury, by all means put the patient on ice compresses for 30 minutes every four hours until you can decide whether to treat it or refer it. If you deem it necessary to refer the case do it early, without waiting for complications to set in.

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor and Mgr.
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Postgraduate Medical Assembly

Mid-South Post Graduate Medical Assembly
Editors:
E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dewell Gann, Jr., M.D.

Mississippi State Medical Association
W. L. Little .... President
Joe E. Green .... President-Elect
Editors:
Leon S. Lippincott, M.D. D. W. Jones, M.D.
G. S. Bryan, M.D.

Councilors
J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J Gould Gardner, M.D.
Thomas J. Brown, M.D. W. H. Frizell, M.D.
D. J. Williams, M. D.

Published monthly at Booneville, Mississippi.

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act of March 3, 1870.

On account of the flood last year the Mid-South Postgraduate Medical Assembly was pretermitted. For next February the program is being lined up in fine form. Many of the men who were to have been with us last February have accepted their places for the coming session. The Mid-South is distinct and set apart in its plans. It is held at the same place each year, at the Peabody Hotel in Memphis. The essayists are men of authority in their respective fields. They are given one hour to cover the subject on which they are discoursing, no discussions. At lunch hour any question may be asked and free discussions may be had by any who desire. This is a very fine plan. Four days and nights are given to the meeting. It is a post-graduate course for every one who attends. It brings broadening influence. There is no finer fellowship found in the world than that displayed by the doctors of Memphis down in Dixie. This city of Southern culture has a fine medical atmosphere and a growing medical school that is gaining favor daily. We love the Mid-South like a twin brother because of the service it has rendered and because of the possibilities it holds for the future. Just one little suggestion we are tempted to make. One night during the meeting the profession of the city has been given to the entertainment of the visiting doctors. In this they have been very, very generous. We are sure it has been very expensive to the local doctors. They have done it out of the bigness of their liberal hearts. It is some times called stunt night. For a change it was very fine. But the time is propitious for a "public night" instead of a stunt night. On this night the president might be heard in a dignified manner and two or three other speakers of national reputation could discuss subjects of vital importance to the laity and to the medical profession alike. It offers a great opportunity to educate the laity and to inform them of some of the service the profession is rendering and can give in the future. If you think well of the "educational night" for the public drop a line to the program committee.

Tuberculosis is now very largely a surgical disease. If surgery is good in the late case, it is still better in the early stage. Now is the time to educate the rank and file in the early diagnosis and the early surgical treatment of this disease. At the present the complicated cases should go to the very best specialist that can be found; but we should not have complicated cases very long. Mississippi has the opportunity to set the pace for the world in the eradication of this disease.

You will not the advertisement o fthe American Supply Company, of Jackson. Mississippi will welcome this company and we are sure will give it support. It will be able to give quick service to the profession. We are very thankful to them for placing an ad with us in the very beginning of their business. Supply companies can render a fine service to the profession. They are doing it. We should appreciate them.

The machine age in which we live is making longer and longer the line of indigent sick. The cost of medical education continues to increase, the demand for medical equipment is multiplied over and over. Overwork and financial worries are cutting the lives of doctors shorter. Human economics are demanding that every person be given medical relief and advice on an equal footing, the essentials of it. The time is near at hand when the average doctor can not afford to take the profit he makes from the few pay cases to treat the charity. Government aid and the profession will probably have to find a meeting place. When they do, freedom of choice on the part of the doctor should always be rewarded. Let the Golden Rule guide the profession in its effort to aid in solving our social and economical problems.

You will note the new courtesy cards of Dr. Black and Dr. Beacham in this issue. We appreciate them. Their cards are a convenience to the doctors who need to refer patients to the men doing special work. In placing this card with us they show a fine cooperative spirit that we deeply appreciate. We are trying as hard as we can to build a journal that will serve the profession in every sense of the word. It has been a hard road. This little financial help and the fine spirit that comes with it gives us courage to keep on keeping on. Thanks to each and every one who carries a courtesy card. Appreciation in advance to the ones who may carry one.

The general practitioner still has a place in the Medical Sun. His field is bigger and broader and more important than it has ever been. The future tho is calling for more group, or cooperative, effort than in the past. The time may come when three practitioners will work together, eight hours apiece, not impossible, if brotherly cooperation abide.

Fifty per cent for writing hospital insurance sounds pretty high and does not seem to indicate that the hospital is so very important.

The Central Medical Society is moving along in fine style with its post-graduate courses. Jackson is growing as a medical center.

In our last issue we copied a part of an article written by Dr. Strong several years ago. He referred to convalesent serum as a treatment at this time. He does no recommend this now. The fine outline on symptomatology in this abstract can not well be improved upon.

We are grateful for the advertisement of The Draughon's School of Commerce, Jackson, Miss. This school is built on a firm foundation. It is known, trusted and respected. It has rendered a fine service. It has a great future. Good will and good wishes to this school!

Dr. Hugh Thompson Beacham announces the opening of his offices for the practice of urology, Suite 1110 Pere Marquette Building. Hours: 12 to 5 and by appointment, New Orleans, La.

After all the big majority of people die with the common every day diseases. So a simple urinalysis and a blood test are of the very greatest importance.

The new day in medicine should make the general man of more importance than he has ever been provided he is broadly educated and meets his opportunities.

The essence of state medicine is to force a person to go to the doctor and to the hospital he does not choose.

The trained nurse can do a lot to revolutionize the practice of medicine for the general practitioner.

The family doctor is a social and economical engineer whose value to human society has long been underestimated.

The next meeting of the Northeast Mississippi 13 County Medical Society will held in the cultured city of Aberdeen.

In prescribing medicine do not fail to impart the courage to your patient to take it.

"Know thy self," yes, and your patient too, as well as the germ attacking him.

Dr. James E. Wilson announces the opening of his office in suite 928-29 of the Exchange Building in Memphis, Tennessee on July 20, 1937. Practice limited to the eye. Phone 8-6340 or 7-8195-W. Office Hours—9 to 4:30 daily and by appointment.

The course in pediatrics given by Dr. Robert A. Strong will continue at the same fee of three dollars. The increased registration fee of five dollars does not apply to this course. It seems that some did not understand this,—Ed.

HOSPITAL INSURANCE

When the matter of group hospitalization insurance was brought before the house of delegates at the Meridian meeting of the State Medical Association a committee of five members who are in no way connected with any hospital was appointed and given plenary power to investigate the proposition and act for the Association. By vote of the house, and by constitutional provision, I think, the President of the Association was added to this committee thereby increasing the membership to six. The committee appointed is, unquestionably, representative. It includes the President, the President-eletct, the vice-president, the Secretary of the Association and two councilors. Besides this, four members are past-presidents. These six committeemen live in different sections of the state. Hence, the sentiment and wishes of the rank and file of the state membership is known and represented by the committee. Besides this, the members went to considerable pains and effort to obtain information from many different sections of the country as to the reactions of doctors not affiliated with hospitals where any one of some hundreds of such insurance schemes had been adopted and tried. From this investigation it was evident that the best interests of the majority of doctors as well as that of the majority of the rural population is not served by any of these plans. Hence, at a meeting of this committee of six (every member being present), held in Jackson on the 2nd of July, by *unanimous* vote, decided that it is better for the State Medical Association, as a body and organization, NOT TO APPROVE OR TAKE PART in the organization or administration of ANY insurance plan looking towards "group hospitalization." Of course, this committee so reported to the committee representing the State Hospial Association which was in session at the same time in the same hotel. It further decided that no "joint session" of committees could be held since this act would imply that this state medical association had been committed to the plan, but, as a courtesy that was due, a written report signed by all six of its members was submitted to the committee representing the State Hospital Association. No effort was made to dissuade or prevent the Hospital Association from organizing and operating such an insurance group. But it seemed to be the unanimous opinion of the six members of the Medical Association that it would be far better if the Association and all its individual members exert every possible effort to influence and induce the legislature to make a much larger appropriation and provision for hospitalization of indigents, since this class of people stand most in need of hospital care. If this should be done the hospitals would be insured sufficient income adequately to protect them from disaster and failure. This, too, would remove any occasion or necessity for insurance since those who can carry insurance can easily afford to pay for any *needed* hospitalization. At the same time the relation between rural physicians and their clientele would remain undisturbed, while in the event the insurance plan should work effectively, the only class of rural patients that can or do pay the rural doctor would be taken from him and given over to the hospital staff member for treatment. This is subversive of all rules of fairness and justice, as well as contrary to the underlying principles of medical ethics.

This writer believes in hospitals, especially *small* hospitals and has long advocated the building of such small hospitals. He, also, knows that they can not be operated without funds, but he is strongly opposed to the insurance method of procuring these funds. These small hospitals are without exception erected and operated by private funds, and I think it is safe to say that few, *if any,* of them are built for altruistic reasons, but rather as a means of making profit or drawing patients from some doctor or doctors who do not have hospital affiliation. Believing this to be true he does not think the State Medical Association should become a party o the transaction. Grant, if must, that the plan (or some worse plan) is bound to be put over, he says let those who are to be profited by it assume the responsibility and the odium that will eventually attach to it. Every single member of the State Hospital Association (so far as this writer knows) is a member in good standing in the Medical Association and are splendid fellows—still since they are mostly financially interested in some hospital and since they are human it is hardly to be expected that they should fail to see the proposition through colored glasses. This writer knows and appreciates each one of them—he loves most of them with ardor, but as a member of this committee and burdened with the responsibility of representing the State Medical Association, he cast his vote along with the other members, NOT to entangle the Association with any plan that does not seem to be in the interest of the majority of the doctors and certainly not to the advantage of the vast majority of the citizens of our state.

G. S. B.

TO THE MEMBERS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

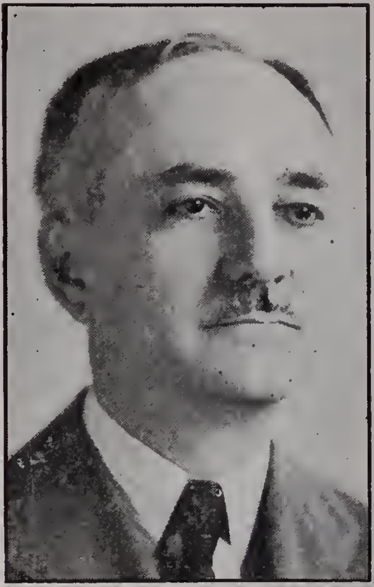
My Dear Doctors:

The program of the Central Medical Society, which will be put on by the entire faculty of the Medical Department of the University of Tennessee, will be held in Jackson, Mississippi, Tuesday, September 7, at Robert E. Lee Hotel.

The program committee of the Central Medical Society believes that this is to be one of the most outstanding medical programs ever presented to any medical audience. The day will be filled with most interesting subjects. One of the particularly attractive and interesting features will be the round table luncheon discussions. The formal programs will go to every member of the Mississippi State Medical Association and its component medical societies at a later date.

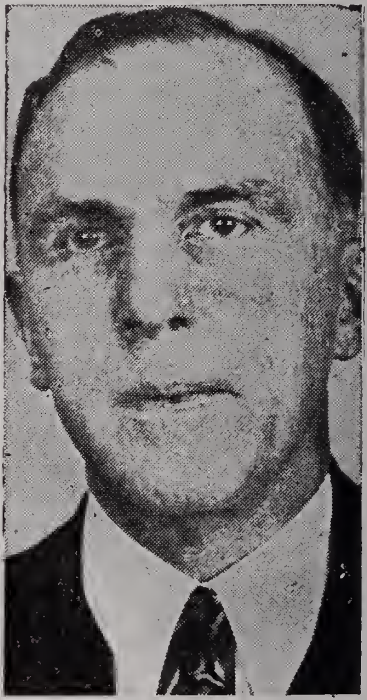
The following tentative program is submitted for your interest and consideration.

9:30—10:30 will be given over to some subjects of general interest on the Eye, Ear, Nose and Throat.



Dr. W. T. Pride

10:30—11:30—"Care of an Obstetrical Case" —Dr. W. T. Pride, Professor of Obstetrics, University of Tennessee.



Dr. George R. Livermore

11:30—12:30—"Urinary Lithiasis" — Dr. George R. Livermore, Professor of Urology, University of Tennessee.

12:30—2:00 Round table discussions.

Dr. Gilbert J. Levy

2:00—3:00—"Acute Poliomyelitis with Special Reference to its Early Diagnosis and Prevention."—Dr. Gilbert J. Levy, Associate Professor of Pediatrics, University of Tennessee.

Dr. Newton S. Stern

3:00—4:00—"Sclerosis of the Coronary Arteries"—Dr. Newton S. Stern, Associate Professor of Medicine, University of Tennessee.

Dr. J. L. McGeHee

4:00—5:00—"Acute Intestinal Obstruction"—Dr. J. L. McGeHee, Professor of Surgery, University of Tennessee.

5:00—6:00—Fellowship hour.

6:00—Banquet.

Dr. Willis C. Campbell

7:00—"Fractures about the Ankle"—Dr. Willis C. Campbell, Professor of Orthopedics, University of Tennessee.

8:00—9:00—"The Care of the Normal Child from Birth until School age with Consideration of those Factors Affecting its Growth and Development."—Dr. Edward Clay Mit-

DR. EDWARD CLAY MITCHELL

chell, Professor of Pediatrics, University of Tennessee.

DR. PHIL LEWIS

"What the General Practitioner Should Know About the Eye"—Dr. Phil Lewis.

"Foreign Bodies in Air and Food Passages" —Dr. W. Likely Simpson.

DR. W. LIKELY SIMPSON

The following round table discussions will be led by the professor on the subjects listed for discussion:

1. Eye, Ear, Nose and Throat and General Medicine—Dr. Van Dyke Hagaman, Chairman of the table, Jackson.
2. Surgery and Orthopedics—Dr. Robin Harris, Chairman of the table, Jackson.
3. Obstetrics and Genito--Urinary—Dr. Geo. Owen, Chairman of the table, Jackson.

DR. HARVEY F. GARRISON

4. Pediatrics and Communicable Diseases —Dr. Harvey F. Garrison, Chairman of the table, Jackson.

We feel that the luncheon round table discussions can be made to serve a most useful purpose, and we are especially anxious that every doctor in the State Medical Association and its component medical societies, who can possibly get here, avail himself of this unusual opportunity to hear and participate in one of the best medical programs, that it is possible for us to secure.

Every member of the Mississippi State Medical Association and its component medical societies are cordially invited and urged to be present and participate in this program on Tuesday, September 7, at the Robert E. Lee Hotel, Jackson, Mississippi.

Sincerely and cordially yours,

Program Committee of the Central Medical Society:

George Owen, M.D.
Van Dyke Hagaman, M.D.
George Adkins, M.D.
Robin Harris, M.D.
Lawrence W. Long, M.D.
Gayden Ward, M.D.
Harvey F. Garrison, M.D.

Letter to the Editor

Omaha, Nebraska,
August 2, 1937.

Dr. W. H. Anderson,
Editor, *The Mississippi Doctor,*
Booneville, Mississippi.

Dear Sir:

The next annual *Inactive Duty Training Period* for medical reserve officers of the Army and the Navy will be held in Rochester, Minn., at the Mayo Clinic under the military supervision of the Surgeon of the Seventh Corps Area (Army) and the Surgeon of the Ninth Naval District (Navy) from October 3 to 16, inclusive.

The morning hours are devoted entirely to professional training given by the various departments or sections of the clinic at its several hospitals and institutions. The afternoon hours are devoted to lectures on professional subjects or military medicine. The evening hours are given to lectures by distinguished visitors and the presentation of medico-military subjects.

The meeting is given for reserve officers of the Army and the Navy, and due military credits are given for attendance.

In past years we have had a number of applicants who have seen notices in your journal or in the Journal of the American Medical Association. We would be very glad indeed to have you use this data as a news item as you see fit.

Sincerely yours,

Kent Wilson, Colonel, Medical Corps, Surgeon.

DR. ALBERT KELLY BARRIER

Dr. Albert Kelly Barrier was born December 7, 1859 at Coffedeliah, Neshoba County, Mississippi. He is a graduate of the class of 1883, Kentucky School of Medicine, Louisville, Kentucky. Dr. Barrier practiced medicine at

Anding and Phoenix, Yazoo County, Mississippi from 1883 to 1903; he then moved to Rolling Fork, Sharkey County, Mississippi, where he now resides. Dr. Barrier has a splendid personality, is an outstanding physician, a pioneer in public health work, and a leader in community civic affairs. He served as part-time health officer of Sharkey County from July 1, 1913 to December 31, 1925 when he was made full-time health officer and director of the Sharkey County Health Department. He served as full-time health officer from 1925 to 1937 when he was made assistant health officer to Dr. R. N. DeJarnette. Dr. Barrier was married to Miss Margaret Zeruah Warren who has a certificate signed by President Woodrow Wilson for faithful and efficient service rendered during the World War. Dr. and Mrs. Barrier have two sons, one being Dr. L. F. Barrier who enjoys a splendid medical practice in Little Rock, Arkansas, the other being Vick Barrier, of Rolling Fork. They have one daughter, seven grandchildren and three great-grandchildren.

Dr. Barrier is a Methodist, a Mason, a member of the Sharkey-Issaquena-Warren Counties Medical Society, and a member of the Mississippi State Medical Association. During his academic training he was an active member of the Philomathean Literary Society. As a result of Dr. Barrier's outstanding pioneer work as a public health officer, he was placed on the program, section of public health, Southern Medical Association, which met at New Orleans in 1929.

Those who know Dr. Barrier unhesitatingly state that he has returned to the community where he has practiced more than he has received. With his fine citizenship he has helped to solve the social and economical problems of his community, and his state. He is a man of vision and practical application. Service has always had a prominent place in his plans. Professional integrity is written in every line of the face. The medical profession of Mississippi appreciates this veteran in its rank. We congratulate him in his success in the art of medicine and in the greatest of all arts, the art of living.

ANNOUNCEMENT

W. T. Pride, M.D., Carey G. Bringle, M.D., Jas. M. Brockman, M.D., announce their association in the Woman's Clinic, 1460 Madison Avenue, Memphis, Tennessee. Gynecology and Obstetrics. Telephone 2-1102 or 2-1103.

TO THE DOCTORS OF THE STATE OF MISSISSIPPI

My dear Doctors:

I wish to call your attention to two proposed meetings of the Central Medical Society. The first, will be held at the Robert E. Lee Hotel, Jackson, Mississippi, the first Tuesday in September, and the other one will be the second Tuesday in December at the same place.

Some time ago, the Program Committee of the Central Medical Society decided to attempt some large meetings in the inerest of the Doctors of Mississippi, and to conduct them somewhat in the nature of a postgraduate course, using the leading medical men over the country, as leaders in the discussion of the subjects that we considered the most interesting to the greatest number of physicians in the State. We had one meeting of this kind in March of this year, which was put on by the entire faculty of the Medical Department of Vanderbilt University. This was such a phenomenal success, that we decided to have like meetings for September and December of this year. The program for the first Tuesday in September will be put on by the entire faculty of the Medical Department of Tulane University.

It is our promise to begin these meetings at ten o'clock in the morning and run through until about ten o'clock at night. We have suggested to these authorities and teachers to conduct this program in such a manner, as to cover the entire field of medicine, surgery and the specialties, having about three major subjects in the morning from ten to twelve o'clock, about three or four major subjects in the afternoon from two to five o'clock and at least two major subjects at night. In addition to this, we are proposing that they give us one outstanding leader from all the major subjects and the specialties, for a round table discussion at a luncheon from twelve to two o'clock. We are hoping and sincerely believe that this type of program will appeal to the majority of the physicians of his state. We can assure you now, that we are leaving nothing undone to make these meetings of the greatest interest to all the physicians of the entire State.

A cordial invitation is hereby extended to every member of the Mississippi State Medical Association, and its component medical societies, to attend these meetings and participate in the discussions. I trust that each and everyone of you will take advantage of these two meetings and take off at least one day, as I feel that I can assure you in advance that you will be amply repaid by the good that you will get out of these meetings, to say nohing of the fellowship. Hoping to see everyone of you at these meetings, I am,

Sincerely yours,
Harvey F. Garrison, Chairman,
Program Committee,
Central Medical Society.

A SURGICAL SUPPLY HOUSE FOR MISSISSIPPI

The first complete surgical supply house in Mississippi was formally opened in Jackson, May 31, by George W. Bourgeois, owner and manager of the American Surgical Supply Company.

Merchandise handled by the new supply house is purchased from the leading manufactures in the United States, consisting of hospital sterilizers, operating tables and lights of the latest designs; instruments, syringes, suturing material etc., all carrying the trade mark of well-known supply houses.

The American Surgical Supply Co. also handles a complete assortment of enamel and glass ware, laboratory equipment, gauze and dressings, rubber goods of every type.

Mr. Bourgeois also announces he has established a service, of wheel chairs, infrared lamps, ultra violet lamps and oxygen tents.

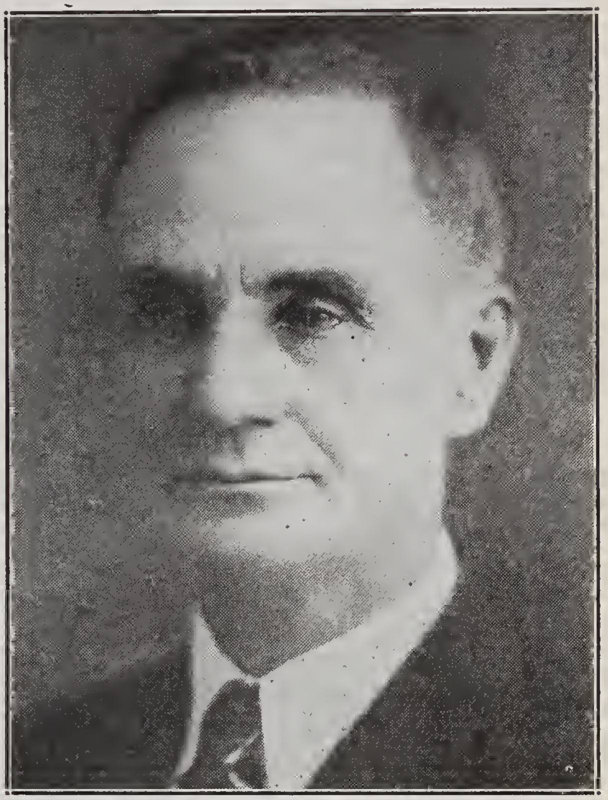
A complete line of abdominal supports, belts of all kind, trusses etc., are available. A lady fitter for the women patients of the doctors.

The new house is owned and operated by a native Mississippian employing Mississippi people. Mr. Bourgeois, the owner, was born and reared in Jackson, Miss., where he has a permanent home.

Salemen, John C. Allen, Armond M. Karow.

Mrs. Hattie Mangum, secretary and bookkeeper.

DR. J. RICE WILLIAMS



This is the likeness of Dr. J. Rice Williams, of Houston. He is one of the best known men in the state of Mississippi. He is known and respected in the medical association as but few men are; and his work in the Masonic Lodge has acquainted him with hundreds who love and admire him. "The work we love to do physics pain." His great pleasure , his invigorating vacation is spent with the lodges of the state. He has just been on a tour.

Dr. Williams graduated in medicine from the University of Tennessee in 1894, and from the University of Nashville Post-Graduate work in 1896. He began practicing in Houlka —Dr. Walker's Hub of the Universe—in 1894. From 1898 to 1903 he practiced at Van Vleet. He moved to Houston and began his practice there in 1903 where he has been since. Since 1923 he has been connected with the Houston Hospital in the field of radiology. He has an x-ray machine and has radium also. His work in this field is outstanding in this state and in the South. Before entering into this special field of work he studied in Memphis, St. Louis, Chicago, New Orleans, Battle Creek and the Mayos. In this field of work he is especially distinguished in deep x-ray therapy. He is a member of the Radiological Society of North America. He is the efficient county health officer for Chickasaw. During Governor Whitfield's administration he was a member of the board of trustees of the Hospital for Insane at Jackson. On legal matters he is the outstanding authority for both medical and hospital associations and is now serving on their legal committees. He is a member of he Northeast Mississippi 13 County Medical Society, having served as its president when it had only four counties. He served as president of the board of trustees of the schools of Houston for many years, as Superintendent of the Sunday School of the Presbyterian Church, in which he is now an elder, and a teacher. He is a member of the Exchange Club and Chamber of Commerce.

In fraternal circles he is very outstanding, having served as Past Grand Master and is now present Grand Lecturer of Grand Lodge of Mississippi., F. and A. M.; served also as Past Grand High Priest of Royal Arch Masons of Mississippi., Past Eminent Grand Commander, Knights Templar of Mississippi and Past Grand Patron and now Chairman of Committee on Jurisprudence of O. E. S. of Mississippi.

Dr. J. Rice Williams is one of the most useful men in the state of Mississippi. He is versatile, broadly educated, and a christian citizen of the first order. He is a man of fine poise, a logical thinker and most accurate in handling facts. He is a very strong man because his thoughts are noble and his heart is pure. He is a diplomat and a peace maker the rival of Henry Clay. As a parliamentarian it is doubtful if he has an equal in this state. He is a man of great vision and at the same time one of fine practical application. He is a useful every day citizen, and yet big enough to serve with distinction in the Governor's chair or the United States Senate. He is not only outstanding in his field of medicine, radiology, but he is a friend to and a helper in every good cause. Dr. J. Rice Williams, the able, the resourceful, the versatile, the useful, and the beloved christian physician and citizen.

It is well to keep in mind that the Southern Medical Association meets in New Orleans this fall the first week in December. The scientific program will be unusually good. The fellowship in the Southern Medical is very friendly and most cordial. The one night program at St. Louis and Baltimore to which the public was invited constituted an unusually fine feature. This one night at New Orleans will not doubt be worth your trip. This is a step in the right direction, a meeting of the profession with the laity for a better understanding. It will be fine to breathe again the wonderful medical atmosphere in New Orleans and to feel the warmth of the fraternal hand in this cosmopolitan city of the South. New Orleans is the home of the Dean of the Medical World, Dr. Rudolph Matas. He is the master with a miraculous storehouse of accurate information fortified with surgical wisdom and further reinforced with professional integrity. It would be great to hear a few words from his versatile tongue; but if you should not, you will be charged with the mental electrons from his medical soul and generous heart. The city of New Orleans is not only a great medical center, but it holds an interest for every member of the family. Make ye ready to go.

We are delighted to have Dr. Anne Walker Fearn, of Shanghai, China, as a new reader of *The Mississippi Doctor*. Dr. Fearn is a native of Mississippi, is spending much of her time now at Holly Springs, at the old homestead. She has promised to do some writing for The Journal to our delight.

POSITION WANTED

Experienced graduate nurse desires Mississippi location as Supt. of Nurses. Address Box 35, Sallis, Miss.

The quarterly meeting of the North Mississippi Medical Society held its quarterly session at Holly Springs, Mississippi, Wednesday, July 28, 1937, 5:30 p.m., Liberty Theater and Stafford's Cafe.

PROGRAM

5:30 p. m.—Liberty Theater; Motion Picture—"Caesarian Section", by Courtesy of Dr. DeLee, Chicago, Ill.

6:30 p. m.—Stafford's Cafe.

1. Invocation
2. Dinner.
3. Minutes of Preceding Meeting and Other Business.
4. "The Etiology, Pathology and Diagnosis of Infantile Paralysis"—Dr. Joseph F. Hamilton, Memphis, Tenn. General Discussion.
5. "The Orthopaedic Treatment of Poliomyelitis"—Dr. Willis C. Campbell, Memphis, Tenn. General Discussion.
6. "Emergency Treatment and Transportation of Fractures"—Dr. Hugh Smith, Memphis, Tenn. General discussion.

Dr. G. H. Wood, President,
Batesville, Miss.

Dr. A. H. Little, Secretary,
Oxford, Miss.

The above program was a very fne one. You will be pleased to have an abstract of these papers in the September Issue of *The Mississippi Doctor*. We offer our cordial congratulations to Drs. Wood and Little on this program. This association is making much progress. They will hold their next session in October at Ole Miss. The Ole Miss. faculty will have charge of the program.

You will note in this issue the fine program scheduled for the Central Medical Association on September the 7th at the Robert E. Lee Hotel in Jackson. It is put on by members of the faculty of the University of Tennessee. This will be a fine post-graduate course. This medical school is growing in favor and efficiency. The Central Medical Association is wide awake and going forward. Jackson is growing as a medical center as well as population. You can ill afford to miss this day and night post-graduate course.

In selecting hospital insurance we should try to find a policy that provides equal rights to all doctors and hospitals and special privileges to none.

BOOK REVIEWS

Synopsis of Digestive Diseases, by J. L. Kantor, M.D., Ph.D., just off the press, is more than the subject implies; it is a compact and thorough presentation of diseases of digestion. The book is written more like a textbook, which makes it simple and clear. The author is professor in Columbia University, and draws on his records and his experience, as well as current literature.

Beginning with a general classification of digestive disorders, the book separates into the general considerations: methods of diagnosis, therapeutic methods, anomalies and allergy. Then the author steps directly into the diseases that attack the digestive tract beginning with the mouth, and continuing throughout, not omitting the liver, gallbladder and pancreas. A section on intestinal parasites presents the essential diseases thus caused, and the last part of the book treats of digestive symptoms which indicate extra-digestive diseases.

This book is replete with drawings and illustrations to simplify the text. There are 286 pages and an index. For the general practitioner, it should prove a valuable investment, a book that would serve daily in the treatment of digestive diseases. Price $3.50. Published by C. V. Mosby and Co.

Laboratory Diagnosis of Syphilis, by Dr. Harry Eagle, lecturer in medicine at John Hopkins University Medical School, Baltimore, is significantly timely, in view of the fact that syphilis has become so prevalent (around 500,000 new cases are discovered each year) that newspapers and secular magazines are voluntarily soliciting public cooperation through a campaign of education. In the foreword (by Dr. J. E. Moore) the heart of the difficulty is stated when the author avers that between the laboratory technicians and the medical profession "there is an unbridged gap of misinterpretation due largely to the fact that the larger group fails to understand the highly technical language of the former." The average physician is hard put to it to unravel the meaning of some of the serologist's reports. This book was prepared to remove this confusion. Dr. Eagle points out that "all serologic tests for syphilis, Wassermann or flocculation, are practical applications of idenical biologic phenomena; he analyses these phenomena and offers a step-by-step explanation of the mechanism. He shows quite clearly that no flocculation test can entirely replace the Wassermann test.

After reading the first chapters of the book, the physician is convinced that the hundred or so technics in use have postponed a standard reaction, and he is ready to accept the author's choice of three technics, namely the optimum Wassermann, the overnight icebox test, and a test in which human blood cells are used instead of sheep. These he discusses clearly and in detail, then in later chapters treats their clinical evaluation, so simply that the physician revises his old ideas and acquires an enirely new viewpoint that is bound to become of practical value to him. The author gives a comparison of the technics gathered from statistics, and points to the method of his choice. Through the appendices he takes the physician into a large Wassermann laboratory, outlining the daily routine, and compares the serologic technic, emphasizing the advantages of the method of choice. Price $5.00. Published by C. V. Mosby Co., St. Louis Mo.

A most excellent book is *Brooks' Textbook of Surgical Nursing,* and every student and graduate nurse should not only be happy to possess a copy, for the constant and renewed study, but should find it a dependable source for efficient assistance to the surgeon. It is just such a book as the surgeon would place in the hands of every nurse who entered his operating room; so broad is its treatment of surgical conditions and methods of surgical and nursing care and the principles involved that no nurse could fail to be more understanding. In preparing the book, Dr. Brookes strives for a better coordination of the activities of the nurse and the physician by placing into her hands a greater knowledge of diseases that require surgery, thus enabling her "to recognize symptoms better, carry out necessary treatment, and assist in the operating room."

The author first explains the nurse's role as confidante and friend to her patient, then he moves to infections, burns, ulcers, wounds, tumors, explaining concisely predisposing factors and giving treatments most generally used. Various dressings and their technique, routine preoperative and postoperative care and complications are carefully illustrated. Then several chapters discussing step by step anesthesias, and all the details of the operating division, leave nothing to hinder her understanding assistance of the surgeon. Following are a number of chapters taking separately surgery of the head and neck, chest, the alimentary tract, the intestines, hernia, the genitourinary system, the extremities, and the vascular system, and diets.

The value of this timely book exceeds many times its cost. Price $3.50. Published by C. V. Mosby and Co., St. Louis, Mo.

— A book of unusual merit is *Obstetric and Gynecologic Nursing,* by the co-authors, Frederich H. Falls, M.S.M.D., F.A.C.S., and Jane R. McLaughlin, B.A., R.N. Dr. Falls is Professor of Obstetrics and Gynecology, University of Illinois, and Nurse McLaughlin is Supervisor of the Department of Obstetrics and Gynecology at the hospital there. They have together worked out the essentials demanded of the nursing profession today, as their experience as teachers in various schools of nursing have given them understanding. In one book the doctor's and the nurse's viewjoint meet on a common plan of sympathy for the nurse's problems, as she seeks to serve the patient, the doctor and the community.

As in medical schools the trend to combine obstetrics and gynecology is followed in this book, particularly the discussions on anatomy, physiology, endocrinology and such clinical subjects as are common to both studies. Simply and thoroughly the management of pregnancy, toxemias, diseases that complicate pregnancy, abnormal labor, operative obstetrics; care of the newborn and problems of obstetrics in the home, out-patient service and in clinics are discussed, just as one would hear them in a lecture-room. Illustrations are frequent and clarify the subjects well.

The second part of the book takes up gynecologic diagnosis, injuries, displacements, diseases of the vulva, infections, tumors, operative procedures and other problems underlying intelligent care of gynecologic patients. The authors stress the need for more education of nurses, but at the same time plead for courageous loyalty and devotion to duty, nurses who accept responsibiilty willingly.

Obstetric and Gynecologic Nursing is new. It might well be recommended by every practitioner to the nurse who accompanies him on his obstetrical cases. The price is $3.00. Published by The C. V. Mosby Co.

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

Summary of the Neuralgias and Ear Symptoms Associated with the Mandibular Joint*

J. B. COSTEN, M.D.
St. Louis, Mo.

After noting a few years ago, that certain cases with neuralgias and ear symptoms which otherwise may have fitted into ordinary groups in medical diagnosis, improved after reposition of the jaws, study of the anatomy of the temporomandibular joint seemed necessary for their explanation. Simple overclosure was obviously associated with the cases of deafness, and irregular movement of the condyles with the jaws in faulty rest position was identified with the irritative and neuralgia types.

Grouping of these symptoms into a well-defined class constantly associated with mandibular joint dysfunction required not only adequate anatomical explanation but also clinical proof by relief of a large number of cases by reposition of the jaws and condyles according to accepted principles of prosthetic dentistry.

Prolific reference has been made in the dental literature to this relationship, notably by Monson[1]. Wright[2], Decker[3], and others, and later, Goodfriend[5], who ascribed deafness in these patients to compression of the external canals of the ears to point of closure by the condyles and also to trauma of the tympanic plate by the condyles causing concussion of the internal ear structures. Smith[4] referred to the need of constant patency of the eustachian tube and suggested that the closed bite caused deafness by "forcing back the tongue to displace the soft palate backward and upward—placing great pressure on the pharyngeal opening of the eustachian tube, which lessens patency of the cartilagenous portion of the tube itself —causes atrophy of the palatine muscles through which the patency of the lumen of the tube is controlled." Goodfriend[6], pointing to reflex effects from trauma of the auriculo-temporal nerve upon the structures of the tympanic cavity, considers these factors are a predisposing cause of the symptoms associated with the eutachian tubes, viz., "head noises and tinnitus, while the exciting causes are infectious involvements from the nose and throat." Harris[7], in describing the applied anatomy of the mandibular joint, mentioned the proximity of the auriculotemporal nerve, and its frequent injury from loose movement of the condyle, "resulting in severe reflex pain which is immediately relieved by advancing the mandible."

Regarding reflex pain and irritative effects upon the nerves within close proximity to the movement of the condyles we find early recognition: the chorda tympani and auriculotemporal nerves in relation to salivary secretion, in the experimental physiology of Czermac (1857), Heidenhain (1878) and Smirnow[8] (1893) who observed increased or diminished production of saliva with varying degrees of stimulation of these nerves; sharp and lancinating pains within the palate and tongue were described by Butlin[9] in 1885, in a patient "suffering from articular rheumatism at the time of the affection of the tongue, and that the temporo-maxillary articulation was attacked two days before the tongue." Brown[10], referring to abnormal function of the temporo-maxillary articulation as a source of pain, stated, 1912, "there are many cases on record in which trigeminal neuralgia has been relieved by the insertion of suitable plates to hold edentulous jaws sufficiently apart to keep the condyloid and coronoid processes of the lower jaw in right relation to the surrounding parts." Almost all writers in describing functions of the mandibular joint deranged by malocclusion, have referred to reflex pain about the joint and head.

---

*Read before the Section on Surgery at the seventieth annual session of M. S. M. A. Dec. 12, 1937.

†From the Department of Otolargynology, Washington University Should of Medicine and Johnson Institution.

In attempting to establish a symptom complex which could be regarded as typical of deranged function of the mandibular joint, various difficulties were encountered: cases presented only part of the symptoms; cases showed various sinus, ophthalmic and constitutional findings in addition to exactly similar effects arising from the joint disturbance; simple measures to hold the jaws apart, a treatment denture, or x-ray study, would show paradoxical results, tests on ear patients showed VIII nerve as well as catarrhal deafness, the origin of one or other not given in history; further, in seeking reports on pain effects, neurotic or very ignorant patients described misleading reactions. However, long before the present series of one hundred and sixty-five patients were observed, a group of symptoms were identified[11] as occurring uniformly in disturbed function of the temporomandibular joint:

The ear symptoms were:

Intermittent or continuously impaired hearing

Stopping or "stuffy" sensation in the ears, marked about meal time;

Tinnitus, usually "low buzz" in type, less often a snapping noise while chewing;

Dull or "drawing" pain within the ears, and dizziness, with nystagmus.

The pain and irritative symptoms were:

Headache about the vertex and occiput and behind the ears, typical site of posterior sinus pain, increasing toward the end of the day (atypical sinus history suggestive of eye headache);

Burning sensation in the throat, tongue and side of the nose;

Dry mouth with almost total absence of saliva and, rarely, excessive saliva;

Occasional herpes of the external ear canal and buccal mucosa, most marked on the edentulous side.

Ear cases were represented by a group of fifty-two, on which fork tests showed varying grades of catarrhal deafness. Many of these also showed headache in addition to deafness, tinnitus or dizziness. When dizziness disappeared with inflation of the eustachian tubes, this was considered an important test in diagnosis of overclosure and compression of the tube. In all cases except those in which the catarrhal deafness was due to chronic nasal infection or those having a coincident nerve deafness, the hearing improved at once after inflation. Finding it difficult to reconcile this prompt change with the previous theories as to concussion of the internal ear structures, which if correct would require months for recovery, anatomical study was made by serial sections through the joint and ear structures. A plane was found in which, when the jaw of the soft tissue specimen was overclosed manually, (to imitate similar overclosure in life) all soft tissues next to the eustachian tube, including the tensor veli palatini muscle bordering the membranous anterior edge of the tube and the adjacent sphenomeniscus muscle, were seen to wrinkle and close the tube firmly. This coincided with the fundamental studies of Prentiss[12] who demonstrated relaxation of the spheno-mandibular ligament when the mandible is closed and the fact that the ligament is a part of the general fascia which encloses the external and internal pterygoid muscles. These functions explain the improvement in condition of the eustachian tubes when the bite is opened, whether the ears are treated or not, accounts for the habit of the deafened person dropping the mouth open when intently listening, and explains the comfort afforded the miner who opens his eustachian tubes just before the concussion of a blast, by dropping his mouth open—all dependent upon tensing the spheno-mandibular ligament.

The symptom of tinnitus was accounted for by the buzzing sensation which occurs in typical catarrhal deafness, and the less frequent snapping noises, attributed to perforations of the meniscus of the joint, as originally described by Prentiss.

Dizziness which could be relieved by inflation of the eustachian tubes, and therefore distinguished from that of toxic labyrinthitis, was found in fourteen of the fifty two ear cases.

Seaver[13] has recently offered a plausible explanation of the effects, tinnitus and vertigo, as "a mechanical stimulation involving a neuromuscular set-up in the mandibular joint, reflexly involving the related neuromuscular set-up in the middle ear," viz, tensor palati and stapedius muscles.

Ninety-four cases, representing the commonest type in the series, complained of head pain. Almost all localized the pain as vertex, occipital, and about the ears, eighteen emphasizing supraorbital distribution. Disregarding posterior sinus or eye disease of which these were typical, but which were ruled out by proper absence of findings, anatomic reasons could be found within the pathological joint:

(a) irritation of the auriculo-temporal nerve by the unsupported movement of the condyle, mesially or backward, as the nerve passes close to the mesial side of the joint capsule, between the condyle and the tympanic plate to distribute over the vertex and temporal region;

(b) production of reflex pain and sensory disturbance in the various connections of the chorda tympanic nerve, the condyle irritating it where it emerges from the tympanic plate via the Glaserian fissure, at the mesial edge of the glenoid fossa;

(c) perforation of the articular disc and impaction of the thin bone of the glenoid fossa, permitting close contact of the condyle with dura (as clearly shown by specimens in the collection of Prentiss[14], and similar ones in our anatomical specimens).

CASE 163. J. H. M. O. Age 62. The past history was negative, and recent physical examination showed no findings, B. P. 130-80, serology entirely normal. Endentulous 12 years, the present complaints began one year ago when dental plates were changed, with tinnitus and burning along the right border of the tongue, and dry mouth.

Examination, 12-11-36, revealed both ear drums dull, retracted, intact. Nose and throat normal. The jaws overclosed upon poorly fitting plates. The excursion of the lower jaw was even, there being no shifting of the condyles. Both mandibular joints were quite tender to palpation. Fork tests: C-gross not heard, middle C and C4, better right. Weber to left. B.C. prolonged, both sides. Hearing distance reduced, both sides.

X-ray study of mandibular joints showed mod-

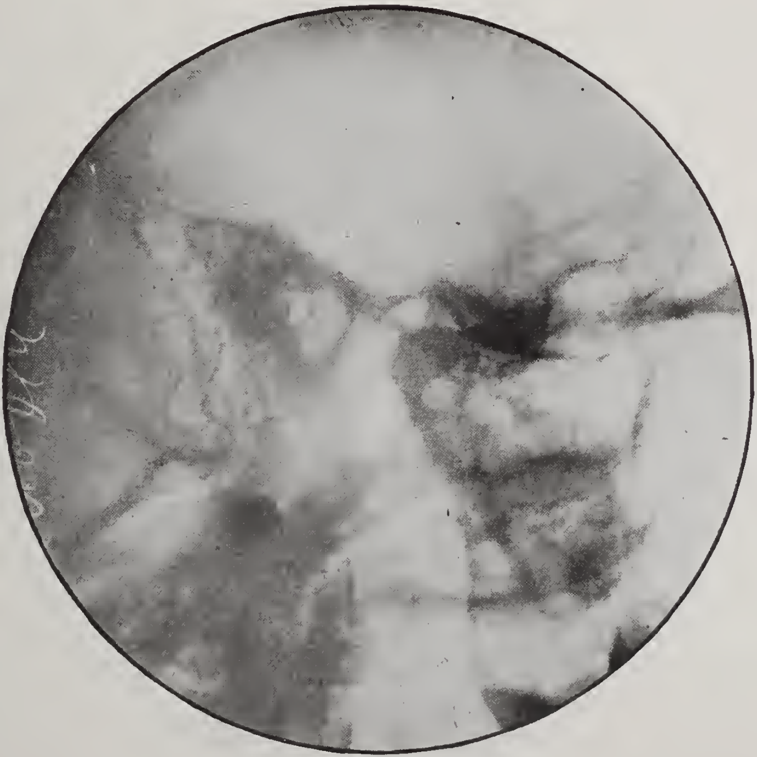


Fig. 1. Case 163. Right, closed.

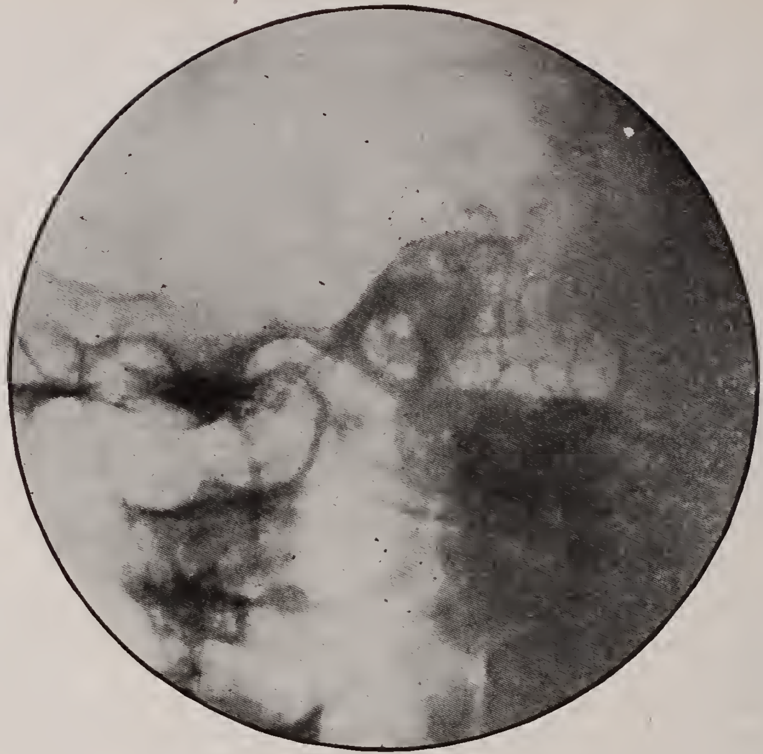


Fig. 2. Case 163. Left, closed.

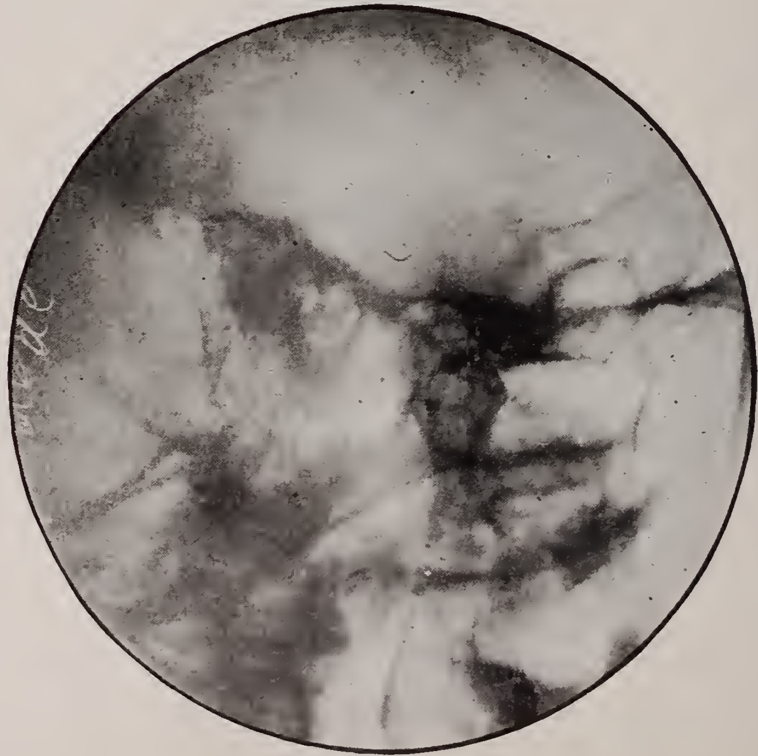


Fig. 3. Case 163. Right, open.

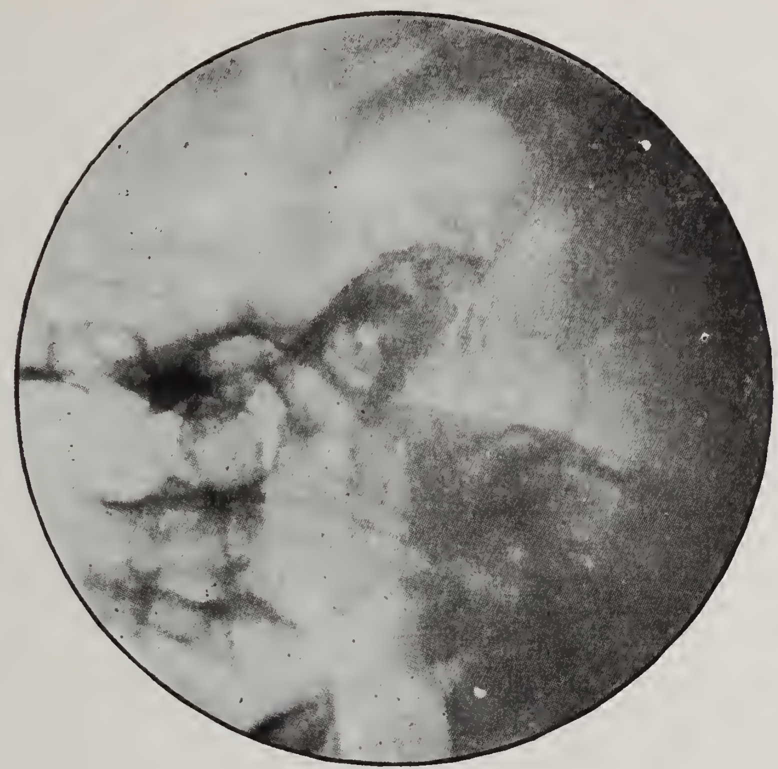


Fig. 4. Case 163. Left, open.

erate flattening of anterior and posterior face of the left condyle, and less on the right. In the closed position the right condyle rests solidly against the articular eminence, and the left almost so, as though the articular discs were perforated, at the usual point of thinning.

In treatment of this case, the vertical incisor dimension was not increased, but an optimum rest position obtained by movement of the condyles backward and slightly to the right.

The burning tongue symptom was relieved, saliva returned, hearing improved in the right ear only. (Report by letter after 3 months)

The first and most obvious sign seen in this class of cases was the wide, sudden shifting of the condyles at some point during the slow closure of the mouth, the movement being clear enough to observe within the soft tissues of the back of the throat; one or both joints were tender to internal palpation; there was absence of molars on the principal pain side or a malocclusion of the natural teeth, producing a similar absence of molar support; and x-ray study showed destructive changes in the joint; further, diagnosis was confirmed by extending the affected side with an arbitrary number of 2mm. cork discs placed within the jaws. Even if nothing is shown by this simple test when the first mentioned signs are present, the patient was urged to proceed with reposition of the mandible in the proper manner. This test is valuable if positive, and is never advocated as a method of treatment, or as a measure of the amount of change necessary to the case. It has been used purely to illustrate the anatomical points involved, and the figures given in my reports were those estimated by the prosthetic dentist after completion of whatever reconstructive measures that were used.

Perhaps the most valuable of all the results obtained by these observations has been the collection of evidence to prove that irritation of the auriculo-temporal nerve by impaction of the condyle, is the chief etiological factor in glossodynia, or burning tongue. There are thirty-six cases examined to date, all without local lesions about the tongue, and cases with salivary disturbance. dry mouth or excessive saliva, nine in number, are confined entirely to this class. All except four were entirely relieved by reposition of the jaw.

The etiology of burning tongue has been conceded to be unknown by all medical writers, early and late. Butlin[9], in 1885, stated, "it was apt to be aggravated by every movement of the tongue, whether in eating or speaking." Blair[15], in 1912, said, "painful affections of the tongue in the area supplied by the lingual nerve may be accompanied by severe neuralgia deep in the meatus of the ear . . . ." Oppenheim[16], in considering it neurologically, stated, "it is not on the whole a very common symptom, and generally effects women of advanced age. The teeth are almost always absent." All described its distribution completely, and recommended psychotherapy, reassuring the patient against the terrors of the fear of cancer.

The results of treatment of this group clearly indicate that glossodynia without local lesions of the tongue is most often a painful effect produced in the lingual nerve supplying the anterior two-thirds of the tongue, by reflex irritation of the auriculo-temporal nerve within the mandibular joint.

The x-ray studies of part of the series were made in the Mallinckrodt Institute of Radiology, direction of Drs. Moore and Scott, the remainder in the laboratory of Dr. E. C. Ernst. The exposures were made in the Sproull position, and various changes from normal noted: (1) fibrosis of the joint capsule; (2) erosion and flattening of the anterior and superior face of the condyle, and to less extent of the articular eminence; (3) wide excursion of the condyle forward in greatly loosened joints.

Precision x-ray studies, such as described by Gillis[17], Lindblom[18], Higley[19], and others for the purpose of controls during treatment, were not used.

CASE 172. Mrs. A. F. Age 56. The patient gave a medical history eventful of disease and childbirth, but no data related to her headache and glossodynia of eight years standing.

The present complaint included daily head pains, located within the right vertex, and deeply behind the right ear. It was not present mornings, and increased in severity toward the end of day. There was also a constant burning along the right border of the tongue, and across the dorsum of the anterior third.

Normal saliva.

Nasal and ear findings were normal, and the pharynx normal. All molar teeth were missing, those on the left replaced by inadequate dentures. Closure of the lower jaw was smooth until almost complete, then the condyles shifted widely to the left. Both mandibular joints were quite tender to palpation.

X-ray study of the mandibular joints showed flat-

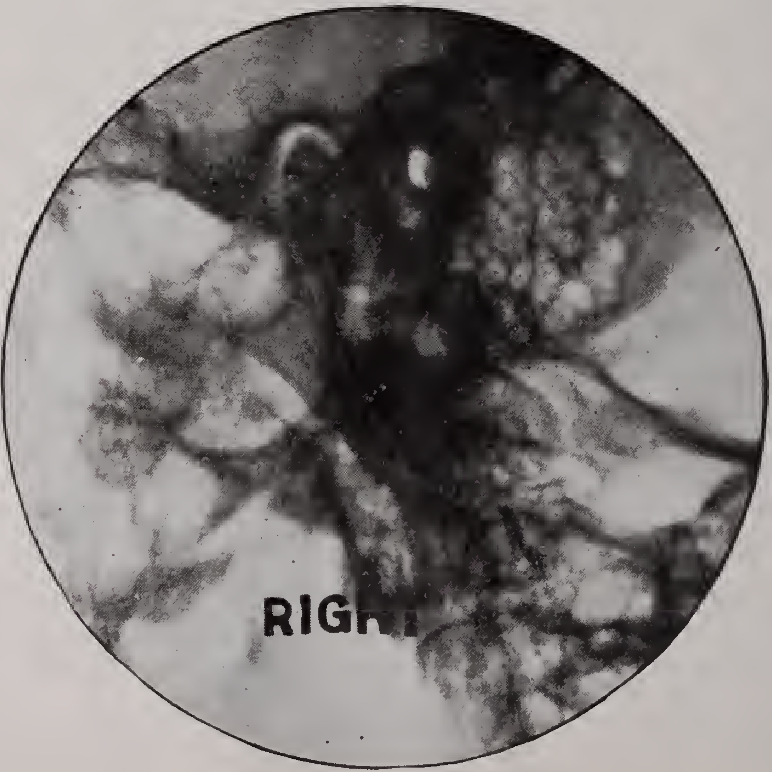


Fig 5. Case 172. Right, closed.

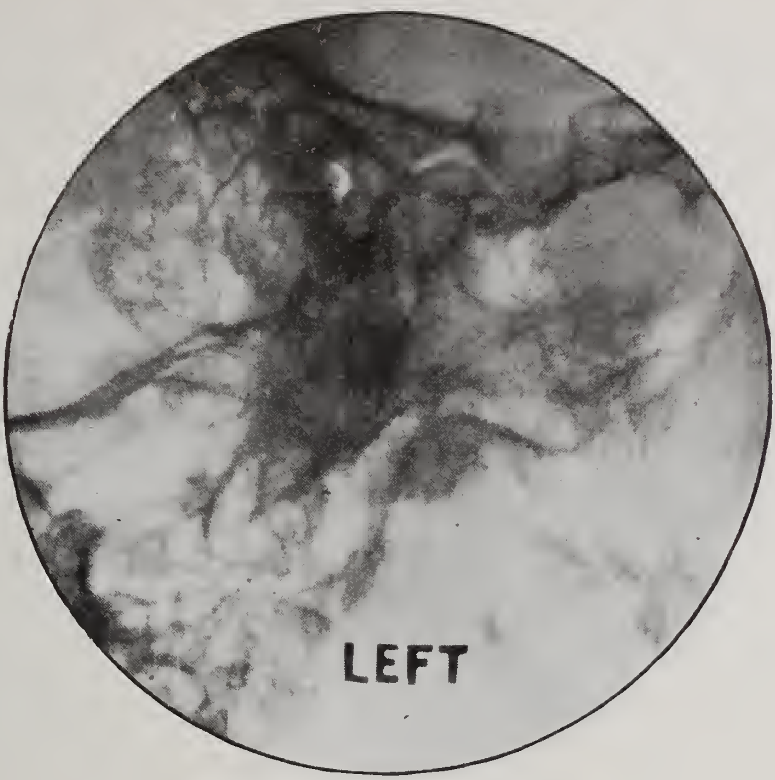


Fig. 6. Case 172. Left, closed.

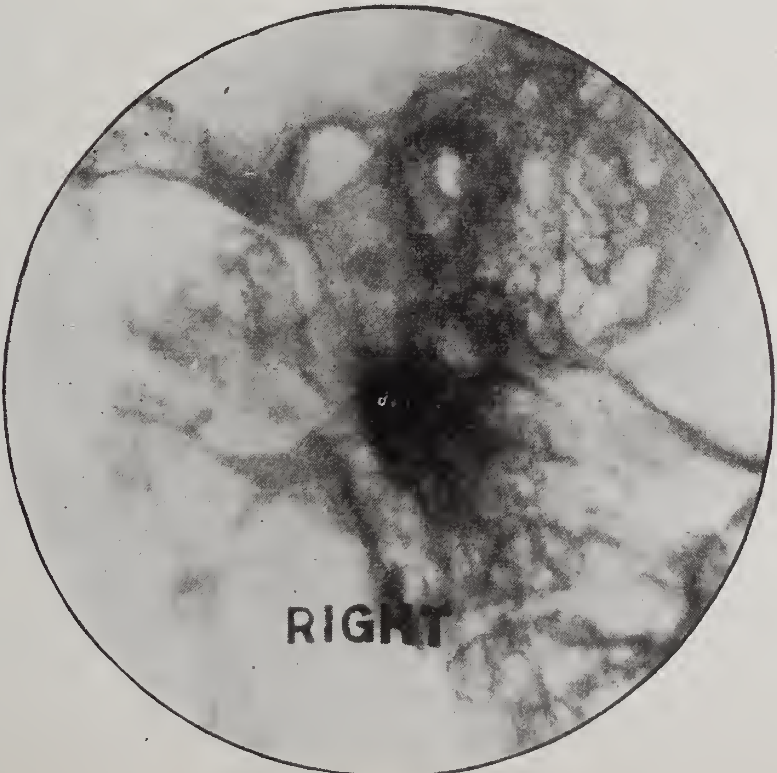


Fig. 7. Case 172. Right, open.

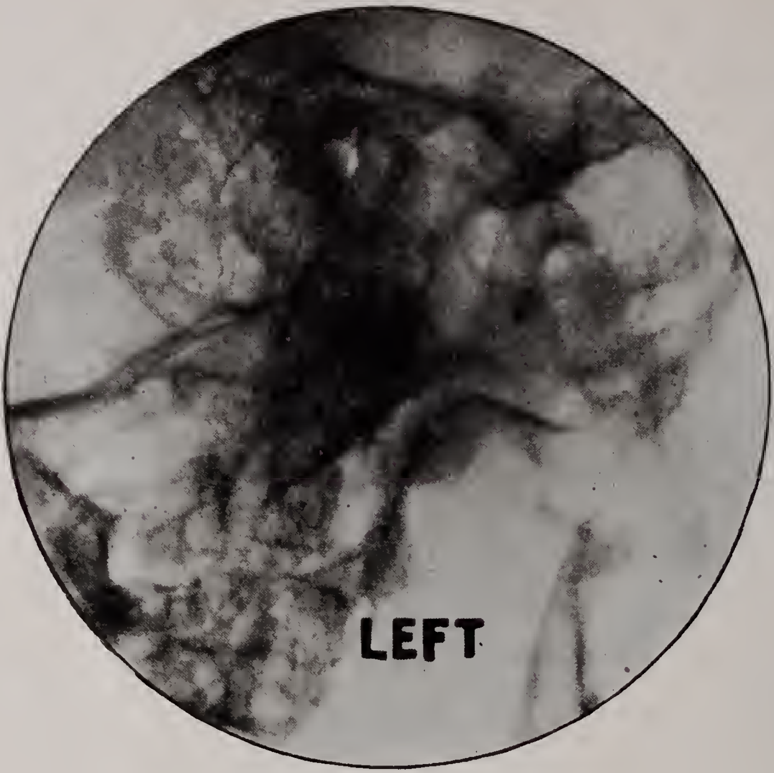


Fig. 8. Case 172. Left, open.

tening of the anterior face of the left condyle, and erosion of the glenoid fossa to produce a notch like effect.

On further questioning, the patient stated that the molar teeth were lost on the left side for many years before being replaced by dentures, and that she had similar pain during that period on the left side.

Extraction of all remaining teeth was advised, and the patient was fitted with adequate dental plates, with marked relief of pain symptoms.

SUMMARY

A symptom-complex of neuralgias and deafness associated with malfunction of the temporo-mandibular joint is defined by clinical, anatomical, and x-ray study. It is further confirmed by the relief of most of the one hundred and sixty-five cases after proper dental reconstruction, to reestablish normal relationship of the condyles within the glenoid fossa.

The neuralgias and deafness correspond exactly with certain effects of sinus, eye, and ear disease, and must be differentiated.

In general, the ear symptoms predominate in edentulous mouths as a pressure effect producing "catarrhal deafness," and cases with pain effects fall into the class with loss of molar support on one side only, or with malocclusion sufficient to produce destruction of one or both temporo-mandibular joints.

The commonest source of failure to relieve pain symptoms has been in cases where the effort to "open the bite" brought the condyle to rest upon the articular eminence, impinging upon the part of both bony structures where erosion most often occurs.

It has been noted that complete relief from pain symptoms has been accomplished in many cases by increase in the vertical dimension of only a fraction of the amount of the extension possible. This indicates that enough change is necessary simply to remove the condyle from range of impinging upon the nerve.

Without attempting to venture into the methods of dentistry, my impression has been that the best results have followed the use of dentures which cause a minimal change in the position of the condyles, or in the patient having all of his natural teeth, the use of full mouth reconstruction to accomplish the same effect.

It must be borne in mind that the pathological mandibular joint is a worn hinge which cannot be depended upon for normal function and the rest position of the jaw henceforth depends entirely upon the effects of dental reconstruction.

722 Beaumont Medical Building

BIBLIOGRAPHY

1. Monson, G. S.: Occlusion of the Teeth, J.A.D.A. 7:399-413, 1920.
2. Wright, W. H.: Deafness as Influenced by Malposition of the Jews, J.A.D.A. 7:979-992, 1920.
3. Decker, J. C.: Traumatic Deafness as a Result of Retrusion of the Condyles of the Mandible, Ann. Otol. Rhin. Larying. 34:519-27, 1925.
4. Smith, T: A Review of the Literature on the Eustachian Tube with Data Indicating a Relation to the Dental Occlusion, J.A.D.A. 12:671-681, June, 1925.
5. Goodfriend, D. J.: Symptomatology and Treatment of Abnormalities of the Mandibular Articulation, Dental Cosmos 75:947-57, 1933.
6. Ibid, 75:947, 1933.
7. Harris, H. L.: Anatomy of the Temporo-mandibular Articulation and Adjacent Structures, J.A.-D.A. 19:584-590, 1932.
8. Heidenhain, R., Czermak, J., Mislawsky, N. A., and Smirnow: Quoted by Kuntz; The Anatomic Nervous System, Philadelphia, 1934, p. 287, Lea and Febiger.
9. Butlin, H. T.: Diseases of the Tongue, London, Cassel & Co., Ltd., 1885, p. 417.
10. Brown, G. V.: The Surgery of Oral Diseases and Malformations, Philadelphia, Lea & Febiger, 1912, p. 321.
11. Costen, J. B.: A Syndrome of Ear and Sinus symptoms Dependent upon Disturbed Function of the Temporomandibular Joint, Ann. Otol., Rhin. and Larying. 43:1 (March) 1934.
12. Prentiss, H. J.: Regional Anatomy, Emphasizing Mandibular Movements with Specific Reference to Full Denture Construction, J.A.D.A., 10:1085-99, 1923.
13. Seaver, E. P, Jr.: Temporomandibular Joint Malocclusion and the Inner Ear a Neuromuscular Explanation, Ann. Otol. Rhinol and Laryng. 43: 140-145.
14. Prentiss, H. J.: A Preliminary Report Upon the Temporo-mandibular Articulation in the Human Type, Dental Cosmos, 60:505-14, 1918.
15. Blair, V. P.: Surgery and Diseases of the Mouth and Jaws, St. Louis, C. V. Mosby Co., 1912, p. 11.
16. Oppenheim, H: Textbook of Nervous Diseases for Physicians and Students, translated by A. Bruce, ed. 5, Edinburgh, O. Schulze & Co. 1911, p. 1200.
17. Gillis, R. R.: Roentgen Ray Study of the Temporomandibular Articulation, J.A.D.A., 22:1321, 1935
18. Lindblom, G: Technique for Roentgen-Photographic Registration of the Different Condyle Positions in the Temporo-mandibular Joint, Tijdschrift Voor Tandheelkunde 43:1019-39, 1936.
19. Higley, L. B.: A New and Scientific Method of Producing Temporo-mandibular Articulation Radiograms, Int. Jour. of Orthod & Oral Surgery, 22:983-991, 1936.

* * *

If you encountered no difficulties, the office boy could take your place.—Forbes.

Rabies or Hydrophobia*

E. S. BRASHIER, D.V.S.
State Veterinarian
JACKSON, MISS.

Rabies is an acute, infectious, and, without exception, a fatal disease of warm blooded animals. The clinical picture of rabies is characterized by disturbed consciousness, increased nervous irritability, and by subsequent symptoms of paralysis. The disease is usually transmitted by the bite of an infected animal to other animals as well as man. Rabies is caused by a virus, the nature of which is not entirely understood, but it seems to have an affinity for the central nervous system.

History

Rabies is a disease of great antiquity, in fact, one of the oldest known diseases of animals and man. Whitmore relates that in the 13th century B. C., Akteon, son of Aristeus, died of the disease. In the 14th century before Christ, Aristotle stated, "Dogs suffer from madness which puts them in a state of fury and all animals bitten by dogs while furious contract the disease." During the Middle Ages, reference to the disease seems to have disappeared from medical writings. After a lapse of over two hundred years and toward the end of the 18th century, there was renewed scientific activity, and one hundred years later Pasteur and his co-workers began an active study of the disease. During this period of renewed scientific activity, it is natural that false ideas and inadequate observations should confuse the people. The false ideas have been handed down to the present generation and even some men in the medical profession still believe in its spontaneous origin or that it may be caused by ungratified sexual desire in the male dog, sudden suppression of lactation in females, extreme heat, foul drinking water, deprivation of meat, etc.

It was not uncommon in those days for persons exposed to the disease or even suspected of exposure to be shot or strangled, poisoned, or suffocated. In 1810 a law was passed in Germany to prevent, on the penalty of death, the strangling, bleeding to death, or in any other way the murdering of a person exposed to or suffering from rabies.

Occurrence

Rabies is found in varying prevalence in all parts of the world wherever man and carniverous animals live in close proximity. It knows no geographical boundaries nor is it subject to terrestrial or climatic influences. It is found from the cold regions of the far north to the sultry tropics and from the congested cities of America and Europe to the sparsely settled wilds of Russia. Under ordinary conditions, the amount of rabies is directly proportional to the population in given districts. In sparsely settled regions the prevalence is not as great except where the wild animals become infected. In Canada there is very little rabies. England has not had a case since 1922. France has long been plagued with rabies. Germany has enacted laws to prevent the spread of rabies but still is infected. Holland, Ireland, Sweden are all free of rabies. Other European countries and islands have had or have rabies infections. In the Orient, rabies is a public health problem and it was known in China during the time of Confucius and has been a serious problem continuously to this day. In the United States, the disease is gaining in prevalence, especially along the Atlantic seaboard, and it is spreading westward. The fallacy that rabies is a summer disease is based upon the fact that during the months of July and August the dog star, Sirius, rises with the sun. This was attributed as the cause of dogs going mad, hence "Dog days." From my own observations the spring months show more cases of rabies. Cold seems to aggravate the disease and in Mississippi we find almost as many cases of rabies in mid-winter as during the spring months. Sex does not have any influence on the development of rabies in an animal.

Etiology

Unfortunately at this late date we are in a controversy as to the causative factors of rabies. In 1903 Negri discovered certain characteristic bodies in the brain cells of rabid dogs. He considered these bodies not only diagnostic of rabies but the cause of rabies. Negri believed these bodies, which had been found exclusively in rabid animals and man, were parastic protozoans because they resist both putrefaction and the effect of glycerin. Investigators are divided into two groups as to the cause of rabies. The first group agrees with Negri that the body found in the brain of a rabid animal is a living parasite, probably protozoan in nature and is the cause of rabies. The second group holds to the opinion that the bodies which bear the name of Negri are products of cell degeneration characteristic of the disease but *not* causative agents and that the causative agent is a filterable virus. Pasteur, in 1880, was able to demonstrate at will the transfer of the virus from animal to animal. The virus is found in the saliva of rabid animals, in nerve tissue, milk, urine, lymph and other body fluids. Rabies virus has been found in the milk of rabid animals by Nocard and Bardach. It may be found in the milk and saliva several days before the animal shows symptoms of the disease. Dr. Mohler, Chief of the Bureau of Animal Industry, produced rabies in a guinea pig by the inoculation of milk from a rabid bitch. The puppies of the bitch were removed from her at the first symptoms of rabies. They remained well and healthy. Mohler cites the case of a woman in the early stage of rabies that transmitted the disease to her nursing baby through the milk, supposedly through an abrasion on the lips or gums. Other cases have been reported where babies have been infected by their mothers who were in the first stages of rabies. The rabies virus is easily destroyed. It is readily killed by exposure to sunlight and air, strong antiseptics and acids. This probably accounts for the small number of people contracting rabies by drinking milk from rabid animals. The gastric juices of the stomach destroy the virus. The brains and meat of rabid animals have been fed, by Nocard, to dogs and foxes without any ill results due, presumably, to the destruction of the virus by the hydrochloric acid in the stomach of these animals. Virus obtained from a naturally infected animal is known as street virus. When it is passed through a large number of rabbits, it is known as fixed virus, and it is from the fixed virus that the vaccines are made.

---

*Read before the Section on Hygiene and Public Health at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 13, 1937.

The protozoan theory has received numerous confirmations. Williams and Lowden observed certain cyclic changes in the Negri bodies which made them believe that they were actually dealing with a protozoan. These bodies vary in size and shape from one to twenty-seven microns long and from one to five microns in width and they appear red in color when stained with methylene blue and eosin. These investigators claim it possible by trituration to remove Negri bodies from ganglion cells and with the smear method of laboratory diagnosis, as many bodies are found without the cell as within. Levaditi and Schoen have made an extensive study of Negri bodies. They agree with Williams and Lowden and they have concluded that these bodies are protozoal parasites that undergo metamorphosis. They believe it is possible in one stage of the life cycle that they exist in a filterable form. In this spore stage the virus is eliminated by the salivary glands of a rabid animal and other secretions of the body. The filterable organism or virus is communicated to other animals or man through the bite of an infected animal. In rare cases the contagion has been caused by the licking of wounds and skin abrasions. The danger of a bite depends upon the virulence of the saliva, the size and depth of the wound, the location of the wound on the body. Rabies occurs more frequently when the infected wound is on parts of the body where nerves are more numerous and which are near the brain and spinal cord. The infection passes along the nerve sheath to the central nervous system and not through the blood stream. Wounds on the hands, lips, nose, cheeks, or any part of the head are considered especially dangerous. Dogs and other animals are often protected from infection by bites on the body where the hair is long and thick. People are often protected against infection on account of thickness and density of clothing, as the teeth are cleansed of the virus when passing through clothing. This accounts for the fact that only 16 per cent of all persons who are bitten by mad dogs, and who do not take treatment, contract the disease.

Symptoms

The dog is a natural reserve from which the disease spreads to other animals. The incubation period of rabies varies, depending upon the kind of animal bitten, the location of the wound, and the virulence of the virus.

From my observation the incubation period is from nine days to six months. At the initial stage of the disease the clinical picture on the whole is the same in the various species of animals. It is one of the most simple and easiest diseases to diagnose. Rabies presents itself in two clearly defined forms: *dumb* or *paralytic* rabies and *furious* rabies. In *dumb* rabies the animal may not show any appreciable change in behavior or he may be nervous and irritable and he may bark incessantly. He drinks water freely and attempts to eat food which, when taken into the mouth, falls out. On the second day there is slight paralysis of the masseter muscles, with the dropping of the lower jaw. On the third day the paralysis is more marked with the mouth opened wider. In this stage the animal presents a pathetic picture, depressed look, sunken eyes. He needs help and wants help. He may go to his master with an appealing pathetic expression on his face seeking treatment. At this stage the master, friends, and neighbors attempt to relieve him of his suffering by trying to dislodge an imaginary bone in his throat, or by giving internal medication. Several people may become infected in this manner. The paralysis becomes more marked with the progress of the disease. There is a dilated pupil; a dark livid tongue protrudes; swallowing becomes difficult. There may be or may not be salivation. As the paralysis extends to the shoulders and limbs the animal comes down and soon dies in convulsions in four to five days. At no time in this type after there is a paralysis of the jaw does the animal attempt to bite anyone or any other animal.

Furious rabies presents an entirely different picture. The dog obeys the call of its master unwittingly and then jumps about and fawns upon him more than usual. He seeks a dark quiet place and then suddenly appears very nervous. He seems to hear something away off which he can not locate, barks continually at times. He may scratch with his fore feet, tear up his bedding. While resting he may suddenly jump up and start barking then bite at an imaginary object in the air. This is called "fly catching." He has a wild, staring look with dilated pupils of the eyes. He will bite any object presented to him whether wood or steel. He licks the genital organs incessantly. There may be or may not be salivation. The animal may drink water, but swallowing is difficult and he finally loses his voice due to the paralysis of the vocal cords. The animal becomes more restless and if confined in a pen, he will make every effort to escape. Once he escapes he may travel a long distance seeking out dogs at first to bite, later attacking any animal, including man, with which he may come in contact. He may make an attempt to return home but seldom reaches home as he is either killed or overcome by complete paralysis and dies in a convulsion in four or five days. Cats develop rabies with considerable frequency and with much danger to people, especially children. They present the same symptoms as the dog. Cattle are more often affected than other livestock. They show unrest and excitement as well as a tendency to fight. The animal stands in one place with head high, excited look, suddenly throwing head up and drawing upper lip back (fly catching). If a cow, she may appear as if in heat. There is constant lowing. If in a stable the animal will paw the earth, bite the manger, charge the stall even to the extent of breaking the horns. The other symptoms and terminations are the same as in the dog. The cow is considered one of the most dangerous of rabid animals and is capable of doing considerable damage. If one should fail to diagnose rabies in a cow he certainly will not fail to recognize the second case.

Rabies in man follows a similar course as in animals. Both the dumb and furious types are manifested. The incubation period may vary from 14 to 90 days or longer, depending upon the location and severity of the wound. The writer has seen and witnessed the passing of three people with rabies, two of which were the furious type. Words are inadequate to describe the agony experienced by these persons. After seeing these cases I can more readily appreciate the anxiety, torture and agony a dog goes through when afflicted with furious rabies.

In the United States deaths among people caused by rabies are increasing and according to figures from the Metropolitan Life Insurance Company, six out of every ten deaths from rabies are among children. Boys are more often victims than girls. The incubation period in children is shorter than in adults, allowing less time for protective immunization. The incubation period is shorter in women than in men.

In dogs there are a few diseases which resemble rabies and which confuse the laity. Many good dogs are destroyed by people who do not recognize rabies and are willing to call any infirmity in dogs rabies. One particular disease is black tongue or typhus. In dumb rabies, as stated above, the masseter muscles are paralyzed, the dog holds his mouth open and there may or may not be salivation. In black tongue there is *always* salivation and the masseter muscles are *never* paralyzed. The dog always holds his jaws tightly together. Running fits or any convulsion is mistaken by people for rabies. The running fit or convulsion may be caused by worms, constipation, putrid food, epilepsy, etc. A dog with rabies never has a convulsion or a running fit in the beginning of the disease. At times there may be a bone or hard mash lodged between the upper canine and molar teeth which would cause the dog to hold his mouth slightly open; or a fishhook in the roof of his mouth would produce salivation and cause him to hold his mouth slightly open. The pupils of the eyes are *not* dilated. A valuable dog is some times killed when suffering from this slight ailment. A dog should not be killed because he has some systemic trouble. If suspected of rabies, he should be placed in confinement and under observation of a veterinarian. This would prevent many people from taking the Pasteur treatment.

Prevention and Control

The prevention of rabies in man may be accomplished in three ways; the treatment of persons bitten by rabid animals, the elimination of rabies in dogs, the effective quarantining of all dogs. The efficiency of antirabic vaccine has been demonstrated many, many times in both man and animal. Pasteur gave the first treatment in 1885 to an Alsace boy named Joseph Meister with gratifying results. Since that time it has been used continuously and successfully in man and domestic animals. The original Pasteur strain of virus is used today in the making of vaccine. The period of protection gained by a series of treatments is not of long duration in man, while the treatment in a dog lasts 12 to 18 months. The antirabic treatment is not altogether harmless. It may produce nervousness, insomnia, and be the causative factor of a paralysis. Persons who should take the preventative treatment are:

First, those who have been bitten by an animal *known* to be rabid.

Second, those having open wounds that have been exposed to an animal *known* to be rabid.

Third, persons who have been bitten by a sick animal that has exhibited symptoms of rabies even though a positive diagnosis of rabies has not been and cannot be made.

Fourth, those who have been bitten by an apparently healthy animal that was destroyed or for some reason can not be observed or examined.

The fact that a person has been bitten by a dog does not mean that he should take the antirabic treatment. Unfortunately, some of our physicians are too eager to administer antirabic treatment, especially to children. In many cases it would be better by far to seek and use the *Mad Stone* which would do no harm, neither would it do any good.

By controlling rabies in dogs we can eliminate rabies in man and domestic animals. This can be accomplished by compulsory vaccination, restraint, a dog tax, and effective quarantine measures. This would be an expensive and unpleasant task. Many worthless stray dogs that travel many miles would be destroyed and even some valuable pet may be destroyed which might excite the owner to murder. Restraint can be accomplished by penning the animal, leashing it while out or muzzling. Muzzling is a very unsatisfactory procedure. A muzzle should be used so as not to irritate the dog and at the same time prevent the animal from biting other dogs or man. The vaccination of dogs against rabies with one subcutaneous injection dates from the work of Umeno in Japan in 1921. Experimental work by investigators in the United States has established the value of the Japanese method. Several lots of street virus from different sources were used by Schnoeing, B. A. I. Laboratory, to inject vaccinated and unvaccinated dogs. In one experiment with the virus designated *U. S. B. A. I. 474*, the vaccine failed to protect, indicating that possibly we have in this country more than one strain of street virus. Kelser and others seem to doubt this theory and state that the failure of Virus 474 was due to its low virulence. Failure in dogs vaccinated with single injections have been observed from time to time by the writer. This may be due to using a vaccine with a low virulence, loss of potency, or a weak dilution. Compulsory vaccination of dogs has been gaining in favor in many places. In a canvass of the 48 states we have found that practically all states have a general act governing the importation of dogs and the controlling of rabies. They require that all dogs entering the state must be accompanied by health certificates showing that they have been vaccinated. This comes under general livestock sanitary board laws. Taking at random a few replies from the different states, I quote:

"In Maine, no rabies until five years ago, lots of trouble now."

"Nevada—wild animals with rabies are a menace to livestock."

"Wisconsin—a general law—very little rabies."

"Alabama—special law—work done by laymen—law not enforced."

"South Carolina—special law—not satisfactory."

"North Carolina—a statewide rabies law but not satisfactory."

"Colorado—rabies, a problem not very prevalent".

"Indiana—rabies is on the increase."

"Kansas—statewide rabies program not necessary."

"Utah—very little rabies."

"North Dakota—no rabies for twenty years."

"Pennsylvania—plenty of rabies — special state law—quarantines enforced and dogs vaccinated."

"Vermont—numerous outbreaks — special state law, compulsory vaccination, expense of owner."

"Idaho—no rabies, no act."

"Montana—one outbreak several years ago, no rabies today, no special laws."

"Georgia—many outbreaks—no stringent laws to control the disease."

"Maryland—plenty of rabies—badly in need of adequate law to control the disease."

From this, one can readily see that rabies is very common in the eastern part of the U. S. In this state we do not have adequate laws and sufficient funds to control rabies, which is gaining in prevalence. Many of the cities have ordinances enforcing compulsory vaccination and restraint of all dogs. Clarksdale started such a campaign on May 7. Unless vaccine of a known potency is used and quarantine measures enforced, their efforts are worthless.. If statewide control measures can be inaugurated by a legislative act with adequate appropriation for the enforcement of the act, which includes strict quarantine measures, compulsory vaccination of all dogs, and the quarantining of all dogs entering the state for a period of six months, rabies can be controlled. The vaccination of dogs should be done by the State Veterinarian or the veterinary profession and all vaccine used should be approved by the Live Stock Sanitary Board. An appropriation to enforce such a law, with public sentiment for control measures, is absolutely necessary for the elimination of the disease. A dog tax will eliminate many worthless dogs and the tax money collected could be used to enforce the act.

With a dog tax, compulsory vaccination, restraint of dogs, enforcement of quarantine laws, rabies can be eliminated in the state, thus protecting man and his best friend, the dog, from this, the most dreaded of all diseases.

DISCUSSION

DR. A. L. GRAY (Jackson): Control of rabies can not be had on a permanent basis by any one city, county, or state in the United States. For control measures to be permanently effective, they must be applied on a nation-wide basis. Local sporadic control campaigns give only temporary relief regardless of the method or methods of control used.

England has been able to control the disease by a national muzzling law. Dog vaccination has proven to be effective in Japan. Quarantine would no doubt be effective provided it was rigidly enforced. A law making dog owners directly responsible for damages done to other individuals together with a licensing law would probably go far toward control provided it were enforced.

Many dog owners are no respectors of their neighbors' rights not to be endangered by dogs. Dogs are no respectors of municipal, county, and state boundaries and are the only domestic animals having complete freedom. They even have more of it than does man. If you kill a man's dog, he will shoot you. If you shoot his child, he will call the peace officer.

These are points which must be kept in mind in formulating any control program. In addition, one wonders whether it is a humane act to allow dogs to roam at will and infect our people with a deadly virus. Man's misdirected humaneness is the principal obstacle to control of rabies.

Peace officers are often reluctant to enforce quarantine to the point of killing dogs because they are afraid they will lose a few political supporters. For this reason, failure on their part to enforce regulations should result in a penalty.

Dr. Barshier has presented a splendid paper on a subject which needs immediate attention.

DR. V. B. HARRISON (Holly Springs): I think it is customary in discussing a man's paper first to congratulate the essayist and then say that his subject is very timely. I do want to congratulate Dr. Brashier, but I think his subject is about 50 years past due. However, it is necessary that we take cogizance of the situation that he has brought us. He has covered the field very thoroughly, and I only wish to touch on one or two points.

Dr. Brashier made the statement, and perhaps there is good evidence to support it, that a bite through clothing reduces the chance of infection. I think that is true, yet one must not be misled. I think the preponderance of evidence is that rabies is caused by a filterable virus which will pass through the pores of a Berkfeld filter which is certainly many times smaller than the porosity of clothing, so I would not like for Dr. Brashier to leave the impression with you men that a bite through clothing is a sufficient reason for ignoring the danger. In handling rabies cases it has been my experience that the first thing that is done when a person is bitten by an animal who is suspected of being rabid, the animal is immediately shot, usually through the head, destroying all the brain tissue, and the head is brought in for analysis. I have tried in several cases to educate not only the public but the medical profession to the danger involved in this practice and many times in explaining to the laymen the situation, I have used this simple illustration: if a person has smallpox, in the early stages of the disease before the rash appears. I believe that it is impossible to make a diagnosis of smallpox. If an animal in the early stages of rabies is killed before the Negri bodies form the clinical pathologist has no knowledge on which to go to base a diagnosis. He can either report it positive without the actual evidence to support it, or he can report it negative, no Negri bodies found, and advise those exposed to take due precaution. It has been my policy when a person has been bitten by an animal suspected of having rabies, yet not bitten about the face, to advise that they find the dog and have the owner isolate it or have somebody keep the dog for a period of ten days. I think most men will agree that at the end of 10 days if the animal is rabid, or if he is "going mad", and is in the infective stage, he will have died. Having died a natural death, it is a simple matter at that time to examine the brain and if he is rabid you will find the Negri bodies.

If he has worms or running fits or black tongue or distemper and he dies from one of these diseases you will not find the Negri bodies, and you may be positive it is not rabies. If he does not die by that time you may rest assured it is not rabies. There is no danger in delay if the patient is bitten on some portion of the body other than the face because the virus is transmitted through the nerves and the disease shows an incubation period proportional to the distance from the bite to the brain. There is very little danger in waiting 10 days. If that policy is rigidly carried out many people will be spared the necessity for treatment, which is after all not very pleasant, but not so unpleasant as to cause one to procrastinate. If a person is bitten about the face the chances are the person exposed may die before the vaccine will do any good, and it is always a better part of wisdom to institute treatment immediately.

Many cities, as has been brought out, do have some sort of ordinance governing rabies. Many states have some sort of law, whether it be a statute or a regulation of the State Board of Health, but we need a state-wide program. This is called for by the fact that the dog does not stay at home; no matter what ordinance you have or how it is enforced your rabid animals do stray. In my own country last fall a suspected rabid animal that was later positively diagnosed to be rabid and the ownership established, bit several people. The first report came to us of a serious dog fight in a place called Mahon Station about 10 miles from Holly Springs on Monday night. I was seen the next morning by several anxious citizens who made inquiries about the animal and what should be done. Monday night the animal traveled from Mahon Station into Holly Springs and during the following day had a dog fight on nearly every street corner in Holly Springs. Fortunately he bit not a human being, but I thing he bit every dog in the town and there were plenty of them. Late that evening his peculiar behavior caused one of the local citizens to kill the dog and his head was examined and diagnosed as rabies. The only precaution we could take at that time was to declare a county-wide quarantine to handle the presumably large number of infected dogs in the county. We had a little difficulty; a lot of opposition. Some of the dogs we required to be muzzled—the city ordinance required muzzling as well as vaccination.. People complained that the muzzles would not stay on and people complained of muzzles stolen off their dogs. Yet such city control did not help in the county. That brings out the need, therefore, for a state-wide program rather than a local municipal program. I would like to suggest or recommend that the proposed state program or law covering rabies be enacted by the state legislature and become a state statute. Of course, we in public health service know that the State Board of Health has the authority to pass reasonable rules and regulations for the protection of the health of the people, but it has been my experience in enforcing such rules that they do not receive the full cooperation of the law enforcing officers. That is the situation. If you have a state statute the police will enforce it.

I have had a great deal of difficulty getting peace officers to enforce the rules and regulations of the State Board of Health, especially as they pertain to rabies. The peace officers have their political situation to consider, but they will get out and enforce the law if you push them hard enough. However, they always "pass the buck" back to you. So any law, whatever the type it may be, I think, should be state-wide and the duty for its enforcement should be placed squarely on the heads of the peace officers, and unless you have done that, whatever your law may be, you will not start the eradication of rabies. I thank you.

DR. E. LEROY WILKINS (Clarksdale): Being connected with an organization of national scope given to child welfare, I feel that I should be derelict if I did not have just a little something to say on this subject. The doctor has told you that the majority of those who are bitten and who are infected with rabies are children. I would like to say just a word more, but Dr. Underwood says two minutes, and when he says two minutes, I think he does not mean over six. Anyway, I am going to put you a question. Did you ever have one of your own little ones accustomed to playing with a puppy at the house of a neighbor? This puppy's mother left the group of puppies when they were three weeks old and has not been heard from since. One day this little puppy that had always been so playful, so quiet, became rather fussy and bit some several people, among them your little child. Did you then watch this dog, become suspicious of it and watch it, confine him and watch him until three days later he died; then do an autopsy on the body of that puppy, finding nothing there, take the head to the laboratory, stand by and watch this laboratory technician with the help of the director of that laboratory open the head of this puppy, make a slide and put it under the microscope and look at it long and carefully, then look at you and say, "I am afraid it is"?

Did you then take that little one and for 21 days inject into that little body a dose of virus that sometimes leaves very ill effects, as the doctor has also told you. And right here I digress for one moment — he mentioned Clarksdale in an anti-rabies campaign. My own little Boston bull was vaccinated in that campaign and is one of those several hundred that died. To go back, did you then for 21 days, which was at that time the period of security, get daily shipments from our board of health laboratory—from them because you felt they had probably the best vaccine that you could get, and inject into that little body a dose of this vaccine? Did you then, not after a few days, but after months and years even—now 10 years—look at that child now grown up to young womanhood and wonder whether she still might have some of the effects of that vaccine or rabies? I have. I plead with you doctors, I beg of you, if such an opportunity is presented to you or if it is not presented through the Veterinarians' Association, then let our own Board of Health and each and every one of us get behind some movement to wipe out rabies. Many of you have gone home in the evening when everything had gone dead wrong during the day—where did you go? You have greeted your wife and children as you went in, but most likely you have gone into the back yard and petted your dog. Well let's do that for the dog, but for God's sake let's above all, do it for the children.

DR. W. H. BANKS (Philadelphia): I would like to ask one question: is it possible for a dog or an animal to communicate this disease to a human being before he has any symptom of the disease, and if so, for how long?

DR. DANIEL J. WILLIAMS (Gulfport): We have a disgraceful situation in Mississippi in many of the counties, and in some instances a good large group of counties. Down in our county of Harrison for two and a half years we have been plagued with this disease. We have fortunately had no cases in human beings. We had it in dogs, cats, cows and horses and other animals. The law as it is today is absolutely non-effective. We will never get rid of the situation as we have it. Some of the leading attorneys and the leading jurists in our state have advised our enforcement officers that they are liable under the regulations for any property destroyed. Let me plead with you and this body to use every effort to get some state-wide law that is more effective. And while I am up I want to say one thing in defense of our state laboratory. There are many doctors throughout this state who are getting almost daily reports from the laboratory, and I want to ask the chairman of this section that he publish, at an early date, the number of examinations that have been made and the number of negatives that have been found, because they tell it all over this section that we never get a negative report from the laboratories.

THE CHAIRMAN: Of course, you do not send dogs' heads at random. When you send one in, the dog is ill or you think it is. I will ask Dr. Kemmerer just at this moment simply to state about how the negatives and positives run.

DR. T. W. KEMMERER (Jackson): Year in and year out they run about 50 per cent positive and 50 per cent negative. This last year it has been about 50 per cent.

THE CHAIRMAN: About 50 per cent of all the heads sent in are negative. This is a very unjust criticism, and those who make it are simply not informed.

DR. W. H. ANDERSON: (Booneville): I have not anything special, but I want to commend this paper, and I just want to urge the doctors here to cooperate with the public health department and with the committee on legislation to try to enforce a state-wide law. I would like to say that I have a card in my room at the hotel now that just came in yesterday. I had a little dog that had a running fit and died and my baby had been playing with it, and I sent it in for examination, and the card came back negative. It is a wonderful service that the state laboratory is performing, but this problem of rabies is one of the most serious we have before us, and we must do something about it. I want to urge the importance of it—the seriousness of it—and urge every doctor here today to make it a part of his business to help us to get a state-wide law at the next meeting of the legislature.

DR. J. S. HICKMAN (Meridian): I have not been chosen to discuss this paper of Dr. Brashier's, however, I can not help but rise to a point of order and ask that I might make a talk, instead of asking questions, as has been suggested, when it is about a subject that is as interesting to me as this one is—rabies. It reminds me of an old saying: that a veterinarian is a much smarter man than an M.D., because of his having no subjective symptoms to go by.

I want to say, that after listening to this masterpiece, I am in accord with this opinion. I know that Dr. Brashier and his staff are doing a wonderful work in the State of

Mississippi, along this line and feel that we should stand by him in helping to carry out the law that we now have, in regard to vaccinating, isolating, or, if necessary, shooting dogs that have not been taken care of for rabies according to law.

When it comes to passing more strenuous laws than we have in regard to handling the rabies' control, I feel that I am in a position to tell you that it is not easy to do. While I was in the legislature, we had this proposition up, and it appeared to me that we had a few of the maddest members when we began to talk about shooting dogs, that we had during the whole session of the legislature. One of my very best friends, a man I respect from every standpoint, stated, that if they shot his dog, he would shoot them. So, this is the proposition you are up against, and the legislature needs a lot of educating along this line.

Again, I say, I appreciated this paper more than any paper read during the meeting of the medical association, and I want to say again, that Dr. Brashier will cooperate with all of the other departments of the state government most satisfactorily; and so will Dr. Underwood.

THE CHAIRMAN: I will state that the State Board of Health and the live stock group headed by Dr. Brashier, state veterinarian, made a strenuous effort two years ago and prior to that an effort was made on three occasions in recent years to get a law passed. We get a law that will work and by the time the legislature amends it you would not recognize it, and you would not want it if it could be passed. You hope they will kill it. I have never heard so many eulogies on the dog—they all come to love the dog and forget the children. I believe with your help something can and will be done in the next legislature. I want to state this, that this speaker has been most cooperative in dealing wih undulant fever in men, tuberculosis in cattle and in this rabies question and everything else where physicians, health officers and veterinarians ought to work together. That has been done and will continue to be done, I am sure, so long as Dr. Brashier and I are able to work together and that will be as long as we are in office.

DR. BRASHIER (closing): In answer to Dr. Banks' question, I stated in the paper that the saliva is dangerous five days or more before the animal shows symptoms of rabies. This has been proven by investigators taking saliva from animals that were inoculated with the virus and before they showed symptoms of the disease. In one experiment with the virus designated U. S. B. A. I. 474, the vaccine failed to protect indicating that possibly we have in this country more than one strain of street virus. Kelser and others seem to doubt this theory and state that the failure of the virus 474 was due to its low virulence.

Another question which was asked a few minutes ago was. "What time of the year is rabies most prevalent?" Rabies occurs any time in the year. From my own observations in private practice, I have found more rabies in the spring months, due probably to the breeding season when dogs are running at large. Cold seems to aggravate the disease and I have found about as much rabies in December, January, February and March as any time during the year and I have asked Dr. Kemmerer, of the state laboratory, what had been his observation and findings in the laboratory. He confirmed my opinion.

The subject of meat and milk, upon which I could not dwell long, is a public health problem. They are foods we all use. Through contaminated meat and milk many people may become exposed to rabies. The animals become exposed by dogs running at large and a rabid animal biting cows while in the pasture. By controlling the dog we eliminate this hazard.

Then we come back to the "dog days". We older fellows and country boys remember about "dog days". The dog star, Sirius, rises with the sun in July and August. Thus, during this time it was claimed that dogs went mad more often than any other time during the year. However, this time, "dog days", does not have anything to do with the prevalence of the disease. I have had lots of experience with rabies in all species of animals. There are many things I could tell you if time would permit. I mentioned in the paper the "mad stone." How many men here have ever seen and know what a "mad stone" is? Hold up your hands. Not many. A "mad stone" is a calcareous body formed in the first stomach of ruminating animals which was thought to have beneficial properties, especially the stones found in the first stomach of deer. On the killing floors of our large packing plants I have seen these "mad stones" from the size of a hen's egg to that of a man's head.

One gentleman during the discussion kept calling the causative factor a common virus. I explained in the paper that the late investigators claim it is a protozoan parasite and that the virus found in the saliva is one of the small morphological changes that takes place in the development of the Negri body, just as in a May beetle or June bug. We have the egg, the larva, the pupa stage and the adult, and at no time during the development of this May beetle does the young resemble its parent. This may be true with the Negri bodies and if an animal was not killed or did not die and the parasite was allowed to continue its growth and development we do not know what it might make. We need a few more Pasteurs and Schoenings.

Some investigators have placed the virus on the digital nerves of a dog and several hours afterwards severed the nerve near the body and the animal did not contract the disease which definitely proves that the infection travels along the nerve sheath and not through the blood.

Now, let us get back to the bill Dr. Underwood told you about. One day while the legislature was in session Dr. Ricks called me and said, "Let's write a rabies bill." We wrote a bill and presented it to Dr. Underwood who suggested a few changes. We thought this bill was bullet proof and we tried to get it through the legislature. It was amended so many times that when it was ready to be passed we did not recognize our own bill. Everybody could vaccinate a dog except the owner. Therefore, we helped kill the bill. The veterinary profession and the state veterinarian stand ready to join hands with you and try to get through the legislature a bill whereby we can protect people, especially children, from this disease by protecting their pet, the dog.

There are many diseases of the meat producing animals that are transmissable to man in which we have a common interest and which I would like to discuss if time permitted.

I thank you and I appreciate the opportunity of coming before you and I hope at some future time you will let me come back.

* * *

If you pick up a starving dog and make him prosperous, he will not bite you. This is the principal difference between a dog and a man.—Pudd'nhead Wilson's Calendar.

Is Sinus Surgery Effective?*

D. C. MONTGOMERY, M.D.
GREENVILLE, MISS.

Why is it that surgery of the paranasal sinuses seems to have fallen into disrepute? Why is it that the average patient or layman when advised to have some one of the sinuses operated upon objects with the statement that he has many friends who have been operated upon for sinus trouble and have received no relief; in fact are worse in many instances than before? Or the answer is, "one operation calls for another and another, and no good result is obtained." Why is it that even some of the general practitioners feel the same way? Some are very definitely opposed to it and frankly say so. Others are very doubtful about the results, rather lukewarm and are inclined to advise their patients against any surgical procedure. Even some of our otolaryngologists are very conservative and advise against any radical procedure.

Is there a basis of fact for this belief, or are we becoming prejudiced against a necessary procedure without cause?

I noticed recently in the literature a paper entitled, "Is Sinus Trouble Being Overstressed?", by Dr. Krinsky, of Brooklyn, a rather comprehensive survey of the sinus problem.

Dr. Richards, of Boston, in examining the records in his hospital notes that sinusitus occurred only four times among 2700 patients in 1918 while in 1930 it occurred 266 times, or twenty-three times more frequently than in 1918. Does this mean that sinus trouble is more frequent now than in the years previous to 1918? Yes and no. Many cases of sinus trouble are being diagnosed today that were overlooked or not even looked for previous to the epidemic of 1918. Undoubtedly since this time and the introduction of the new streptococcus strain of germs associated with this epidemic many more cases of sinusitus have developed.

The investigators have pretty generally agreed that infection of the sinuses in both the acute and chronic states has greatly increased since 1918 or that we are finding many more cases because we are sinus conscious and are studying our cases in a more systematic manner.

Let us consider sinusitus in its relationship with other systemic and local conditions.

Sinus and Focal Infection

The first question that comes to me here is, do we believe in focal infections as causative factors in systemic conditions? If we do, then we must accept the sinuses as one of the focal points. If we do not, then we must rule out the teeth, tonsils, gall-bladder, colon, and other points, for infection is found in the sinuses just as it is in the other accepted locations.

At the present time this is a debatable point. Much has been written recently on foci of infection. Kaiser, Cunningham and others seem, to their own satisfaction, to have partly exploded focal infection theory. Even Rosenow has been obliged partly to retract from his persistent, dogmatic stand with his recent admission, "Not too much should be expected from the removal of a particular focus in individual cases."

Imperatori, in his book, stresses the role of the sinuses as a source of many diseases in no uncertain terms. Collum says that the sinus is "the real factor in focal infection."

On the other hand Anderson, from a study of 400 cases of antral infection, has found that it is not a significant factor in focal infection.

Barnhill, in his recent consideration of focal infection, states that the operative results have not been as worth while as had been hoped. This might also be said many times in the removal of teeth and tonsils, the results often being very discouraging.

Sinusitus in Relation to Disease of Other Organs

Cooke and Grove, in a recent paper, present excellent discussions of disease of the sinuses from the internists' point of view. In a study of 248 cases of infective asthma they found the sinuses to be an etiologic factor in 92 per cent. The sinuses were operated upon in 120 cases. Observation over a period of from six months to three and one-half years showed 70 per cent of the patients to be definitely improved.

Mayes showed that 85 per cent of patients having demonstrable sinus disease showed x-ray evidence of pulmonary changes. He warns us that "nasal accessory sinus disease is one of the most important clinical subjects we have to consider today. It is more frequently overlooked and more inadequately treated than any other disease of real consequence."

---

*Read before the Delta Medical Society, Belzoni, Oct. 14, 1936.

Farrell states that in 66 cases of bronchiectasis 85 per cent showed evidences of inflammatory changes in the sinuses.

Chronic infection of the sinuses is responsible for many cases of chronic cough, anemia, loss of weight, frequent colds as well as arthritis, neuritis, and various aches and pains throughout the body. Most cases of pneumonia present evidence of sinus disease; especially is this true in children. Collum says that it has long been believed to be an etiologic factor.

On the other hand, Bloomfield speaking of foci of infection such as tonsils, teeth and sinuses, says, "The casual relationship of such foci to systemic or to remote disease still remains largely unproved." The evidence in favor of their being responsible for chronic arthritis, arterial hypertension, arteriosclerosis, renal diseases, hepatitis, cholecystitis, etc., requires the most careful scrutiny.

Salinger, in a recent summary of the literature during the year 1935, quotes from the papers of over 100 writers, the great majority of whom are agreed that diseases of the nasal sinuses do act as focal infections and demand removal either through conservative surgery or local treatment.

Difference of opinion as to the merits of radical and conservative surgical proceedings are still being extensively aired and it is interesting to note that European otolaryngologists lean rather definitely to conservatism.

Despite the criticism of sinus surgery by some of our profession I believe that it gives as good results in properly selected cases as surgery in any other part of the body.

The so-called failures in surgery of the sinuses are due to:

1. Failure to make a complete study of the patient and to eliminate any other causative factors.

2. An allergic sinus secondarily infected with pathogenic organisms. The infection here is gotten rid of by operation but the allergic symptoms still remain and the patient feels as if he is no better.

3. Surgical treatment must be based not only upon the extent of the local pathologic process but on the degree of general resistance and on the effects of the local process on the general economy and various remote tissues. In other words, the proportion of physical, surgical, and mental treatment required will vary among patients according to their psychic make-up as well as the degree of the local process.

4. The anatomy of the sinuses is different from that of other foci of infection. You can remove tonsils or pull a tooth, cut out an appendix or gall-bladder but the sinuses being cavities can only be drained or their lining membrane be removed. You can not obliterate the cavities. Except in a few instances, therefore, they remain and may in the future be reinfected.

There is some basis of truth to the statement that when you begin, one operation leads to another. There are eight sinuses, any one of which or all of them, may become involved at various times, or in our desire to be conservative we do the simple operation where the radical one was needed and later must be done. The fault here is not with the operation but with the judgment of the operator who is anxious to do as little as possible to get results.

5. Such factors as intestinal disorders, ductless gland disease and dietary mistakes often influence the results of operation and are too often too little considered. Poor results are often due to lack of proper attention to these conditions.

In conclusion I would like to say that disease of the sinuses is:

1. One of the most important focal infections in the body. Either we must accept this or we must exclude abscessed teeth, bad tonsils, etc.

2. The term "sinus trouble" has become a very elastic word that is being used by both layman and doctor to include not only sinusitus but all types of infection within the

nasal cavities and to cover any nasal symptom—often due to some remote condition such as intestinal toxemia, ductless gland disease and imbalanced diet; something like the old term rheumatism which covered a multitude of sins.

3. The diagnosis of sinus disease should be reserved for those cases in which after a complete and thorough examination no other factors of consequence are found.

4. That conservative surgery of a properly diagnosed case of sinus disease gives as good results as surgery of any other part of the body.

◆

"A friend is a person with whom you dare to be yourself. No matter what you do he likes you. You can weep with him, laugh with him, pray with him. Through and underneath it all he sees, he knows, and he loves you."

Mississippi State Medical Association

ORGANIZED 1867

Leon S. Lippincott, M.D., ...Editor
D. W. Jones, M.D., ...Associate Editor
G. S. Bryan, M.D., ...Associate Editor

COUNCILORS

J. W. Lucas, M. D., ...First District
L. L. Minor, M.D. ....Second District
R. B. Caldwell M.D., ...Third District
Thomas J. Brown, M.D., ...Fourth District
W. H. Watson, M.D., ...Fifth District
H. Lowry Rush, M.D., ...Sixth District
J. Gould Gardner, M.D., ...Seventh District
W. H. Frizell, M.D., ...Eighth District
D. J. Williams, M.D., ...Ninth District

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

WHY HOLD BACK PROGRESS?

At the last meeting of the Mississippi State Hospital Association at Meridian, after several years of study and long debate, it was decided to inaugurate in Mississippi a hospital service plan by which at no profit to anyone and at a cost of a few cents a day citizens of Mississippi could receive full hospital service in any member hospital. This was in line with similar hospitalization insurance plans whch have proved successful in other parts of the country and which now number nearly a million subscribers.

Believing that the medical profession of Mississippi, as in other states would be interested and should have a hand in shaping the policies of the organization, the Mississippi State Hospital Association asked the Mississippi State Medical Association at its annual session at Meridian this year to appoint a committee to work with and cooperate with the committee of the Hospital Association in inaugurating the plan in Mississippi. The committee was authorized, given full power to act for the Association, and was appointed by the incoming president.

At a meeting of the two committees on June 25, only two of the six members of the committee of the Medical Association were present. At a second meeting on July 2, the full committee was in attendance and presented the following statement:

"Believing that the proposed plan is not to the best interest of the rank and file of the membership of the Medical Association we deem it best that this committee does not concur in any plan of hospital insurance."

After some discussion, the committee of the Medical Association then withdrew. At the time the proposed by-laws and set-up of the plan of the Hospital Association had not been presented to the full committee, explained, or acted upon.

Inasmuch as hospitalization insurance is recognized by the American Medical Association and the American Hospital Association, furnishes a plan by which persons of little or moderate means may receive full hospital service at a few cents a day which could be paid, and is already in Mississippi, one can only wonder whether the committee of the Medical Association, in its action really did represent the "rank and file" of the Association and whether the majority of the doctors of the state will ratify its attitude.

It has been said in effect that doctors should not be the first or the last to endorse new ideas. The plan of hospitalization insurance, while moderately new in that it has been rather generally accepted for only several years, is not so new that it has not been proved to be of inestimable benefit to the average citizen of moderate means in a number of states. It is already furnishing hospital care to nearly a million persons at a price that they can pay. It is significant that in most states representatives of the medical association are members of the boards of directors and that members of the medical profession have been among the first to themselves become subscribers to the benefits of the plan.

Budget plans for meeting expenses of various kinds are in vogue. They are here. A number of medical societies are even extending such plans to medical care. Would it not be better for the medical profession to have a hand in the guidance of organizations which have to do with the care of sick people? May it not be that by such guidance state medicine may be made less obnoxious?

There was the man already in jail whose lawyer said, "You can't put this man in jail." Hospitalization insurance is here. Would it not be better for the profession and the patient for hospitalization insurance to be under the control of the medical profession.

HOSPITAL SERVICE ASSOCIATIONS

In the April number of *Hospitals* was published an article entitled, "Six Typical Hospital Service Associations." In it is well shown the fact that so-called "hospitalization insurance" is making great strides in this country in helping the average family to meet expenses which may come at any time and usually when least expected. Automobiles, radios, electric refrigerators and many other things that make life different from the past are available and are purchased on the budget plan, sometimes with the assuming of obligations beyond the earning capacity of the head of the household. Seldom is anything laid aside to meet the costs of hospitalization should they occur. A young man starting out gets a job. Perhaps he receives $100 per month. Soon he marries and sets up a home. Then a baby comes. He and his wife have lived in homes that had an automobile or two, radio and various other conveniences and luxuries of modern life. Probably their parents have spent a lifetime of hard work and planning to get what they now enjoy. The young people think that they should start in where their parents now are. They find that automobiles and radios and electric refrigerators can be had by signing on the dotted line to pay so much a month. Each sounds little and easy. There is no thought for the total or the future. Then some one has to go to the hospital. They would be insulted if a charity hospital was suggested and, of course, with $100 a month, would not be entitled to charity care if they so elected. When the hospital bill come up, it is evident that if it is paid even in installments, it will mean that payments on the automobile and the electric refrigerator and all the other payments will have to stop.

Hospitalization is often a necessity. There had to be a way to provide for the family of low or moderate income. The demand is being met by the same kind of plan by which automobiles and electric refrigerators and all the other desirable belongings are had—by "easy monthly payments,"—only while hospitalization is a necessity, the cost is low, usually two or three cents a day, and easy to pay. It allows that family which is not on relief. which is trying to maintain a place of independence, to go to the hospital when occasion demands on the same status as other pay patients with all costs paid.

In these days when there is a distinct tendency for many people to slide into the easy going attitude that the government will care for them, anything that will stimulate individual responsibility is worth while. With hospitalization insurance at a low cost provided by non-profit organizations, many families are glad of the opportunity to hold their heads up with those who promptly pay their obligations. The plan is here. It has proved popular wherever it has been offered. It is worth while.

It is reported that budgeting for hospital care has developed rapidly during the past three years. There were upwards of 800,000 employed subscribers and dependents participating in voluntary hospitalization insurance plans on March 1, 1937. The dominant type of hospital service plan is that organized as a non-profit corporation offering free choice among a group of participating hospitals.

In most of the plans primary emphasis is placed upon public welfare rather than hospital finance. A subscriber can be hospitalized only upon the recommendation of, and while attended by, a private physician of his own choice. Private physicians' services are not included as benefits to hospitalized subscribers. There is no interference with a subscriber's relations with his physician or a hospital's relations with its staff. Financial sponsorship is on a *non-profit* basis with no private investors owning or controlling policies of the plan. Subscription prices have been adequate to reimburse participating hospitals for all services to subscribers. Substantial numbers of the medical profession have enrolled themselves and their families as subscribers in each community.

The Mississippi State Hospital Association is now setting up *The Hospital Service Corporation of Mississippi* in accordance with the recommendations of the American Hospital Association and the American Medical Association and the experience of successful non-profit similar organizations. The beneficiaries of the plan, the ordinary Mississippi citizens, are being given first consideration. Approved participating hospitals are to be paid only their regular rates for similar service to pay patients. There is no stock on which dividends are to be paid. No one makes a profit. The administrative staff will be reimbursed on a salary basis only. The movement is forward and in line with good and approved practice. It deserves the loyal support of every doctor in Mississippi.

CHANGE OF ASSOCIATION MEETING DATES

At the request of the hotels and Chamber of Commerce of the City of Jackson, due to the meeting of the State Teachers Association during the fourth week of April of each year, the Executive Committee of the Council has changed the date for the annual meeting of the Mississippi State Medical Association for 1938 from April 26, 27, and 28 to April 19, 20, and 21.

DIRECTORY AND CALENDAR OF MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-First Annual Session and Thirty-fifth Annual Session of the House of Delegates, Jackson, April 19, 20 and 21, 1938.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p.m.

Amite County Medical Society: W. R. Stewart, Osyka, president; D. H. Thornhill, Crosby, secretary. Meets with Wilkinson County Medical Society, Centerville.

Central Medical Society: L. W. Long, Jackson, president; Gayden Ward, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m., except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. E. Powell, Charleston, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clarke-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: I. W. Barrett, Clarksdale, president; N. C. Knight, Clarksdale, secretary. Meets second Wednesday each month, Clarksdale Hospital, Clarksdale, 1:30 p. m.

Delta Medical Society: E. T. White, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

Desoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, Rt. 4, Memphis, secretary. Meets first Monday of January, April, July, October, Hernando, 10 a. m.

East Mississippi Medical Society: T. G. Cleveland, Meridian, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: L. Costley, Meadville, secretary.

Hancock County Medical Society: A. P. Smith, Bay St. Louis, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: G. C. Jarratt, Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday, each month, Mississippi State Charity Hospital, Vicksburg, 7 p.m.

Jackson County Medical Society: W. J. Weatherford, Pascagoula, president; R. G. Lander, Pascagoula, secretary. Meets second Thursday of March, June, September, Pascagoula, 7 p. m.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Marshall County Medical Society: C. R. Senter, Byhalia, president; Herbert Phillips, Holly Springs, secretary. Meets second Thursday, each month, alternating between Byhalia and Holly Springs.

Newton County Medical Society: V. L. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: R. G. Grant, Holly Springs, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: L. L. McDougal, Booneville, president; A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September and December.

Pike County Medical Society: J. L. Bauer, McComb, president; Elise Rutledge, McComb, secretary. Meets first Thursday, each month, McComb, 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R.F.D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Stone County Medical Society: Earl W. Green, Wiggins, secretary. Meets with Harrison-Stone-Hancock Counties Medical Society.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday, each month, Senatobia.

Tri-County Medical Society: D. T. Langston, New Hebron, president; R. B. Zeller, Hazlehurst, secretary. Meets March, Copiah - Lincoln Junior College, Wesson; June, Walthal Hotel, Tylertown; September 14, Riverside Hotel, Monticello; December 14, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president; H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: E. M. Butler, Centreville, secretary. Meets with Amite County Medical Society, Centreville.

Winona District Medical Society: P. B. Brumby, Lexington, secretary.

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION

Ninth Annual Session, Jackson, April 18, 1938

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary, Meridian: First Friday, each month 6:00 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital, Oxford: Third Wednesday each month, 7:30 p. m.

Charleston Hospital: First Thursday, each month, 7 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p.m.

George C. Hixon Memorial Hospital, Electric Mills: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium, Amory: Third Thursday, each month, 8:00 p. m.

Greenwood-Leflore Hospital: First Thursday, each month, 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital, Lexington: Second Thursday, each month, 7:00 p. m.

Houston Hospital:Fourth Friday, each month, 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p. m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p. m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 7:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.

Magee General Hospital: Twenty-fifth, each month, 6:00 p. m.

Mayes Hospital, New Albany: First Monday, each month, 2:30 p.m.

McComb City Hospital: First Tuesday each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday, each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Hospital: Second Thursday, each month.

Northeast Mississippi Hospital, Booneville: First Monday each month, 7:00 p. m.

Oktibbeha Hospital, West Point: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veterans' Hospital, Gulfport: Every Monday, Tuesday, Wednesday and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month, 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

MISSISSIPPI STATE BOARD OF HEALTH

Miss Hilda Hakim, graduate nurse from Beirut, Syria, spent the month of June in Mississippi studying malaria control and public health nursing, both acute problems in her native country. Traveling under the auspicies of the American Hospital at Beirut and the Rockefeller Foundation, Miss Hakim came to Mississippi from Vanderbilt University, Nashville, and has gone from here to East Harlem.

Dr. Joe Quintini of Venzuela is spending June and July in Mississippi observing state and local health work. A doctor of wide experience and many degrees, Dr. Quintini has been at the Hopkins School of Hygiene and Public Health the past year and will return to a position in the Ministry of Health, Venezuela, upon completing his studies in the United States.

Dr. Frances Rothert from the Federal Children's Bureau, Washington, visited the State Board of Health June 2 for conferences regarding child welfare in Mississippi.

Dr. Felix J. Underwood attended the meeting of the American Medical Association in Atlantic City, N. J., June 9-11, as a delegate from the State Medical Association.

The State Board of Health held its semiannual meeting in Jackson June 23, 24, 25. Composed of Dr. J. W. Lipscomb, Columbus; Dr. S. E. Eason, New Albany; Dr. L. B. Austin, Rosedale; Dr. J. B. Shaw, Slate Spring; Dr. W. H. Banks, Philadelphia; Dr. H. L. McKinnon, Hattiesburg; Dr. L. W. Brock, McComb; Dr. John B. Howell, Canton; Dr. Wm. R. Wright, Jackson; and Dr. Felix J. Underwood, secretary and executive officer, the Board conducted examinations the first two days and held a business meeting the last.

The following physicians were licensed by examination:

Dr. James Harris Armstrong, Houston; Dr. William Riddick Armstrong, Houston; Dr. John Doyle Dyer, Van Vleet; Dr. John Wesley Dorman, Myrtle; Dr. Littleton Havard Eubanks, Lucedale; Dr. Fred Geisenberger, Natchez; Dr. Benjamin Franklin Hand, Waynesboro; Dr. Arthur Vernon Hays, Hattiesburg; Dr. John Blanch Howell, Jr., Canton; Dr. Thomas Harrison Lambert, Charleston; Dr. Sam Gwin Mounger, Greenwood; Dr. John Robert Priest, Jr., Houston; Dr. Richard Parish Walker, Meridian; Dr. William Whitfield Watkins, Aberdeen; Dr. Ellwood E. Baird, Sardis; Dr. Lemann Hannah Bounds, Meridian; Dr. Bradley Claude Brownson, Vicksburg; Dr. Seiberth Sorley Kety, Picayune; Dr. Paul Harmon Parker, Bonita; Dr. Gordon Keith Rogers, Belzoni; Dr. Wm. Julius Slaughter, Meridian.

Physicians listed below were licensed by reciprocity:

Dr. Kenneth Rush Bell, Columbus; Dr. Walter Carlton Edward Spencer, Greenville; Dr. William Bates Buckner, Mendenhall; Dr. Gordon Waldemar Peterson, Greenville; Dr. Howard Lynch Boone, Stonewall; Dr. Carroll Ewart Roach, Greenville; Dr. Robert Henry DeJarnette, Rolling Fork; Dr. Elizabeth Franklin, Blue Mountain; Dr. Isadore Dyer, Vicksburg; Dr. Laura Oise Williams, Meridian; Dr. Dewitte Augustus Buckingham, Meridian; Dr. Wallace Lee Chambers, Pickens; Dr. Joseph Graham McKinnin, Hattiesburg; Dr. Dewey Lohring Anderson, Sanatorium; Dr. Chas. Ridley Gillespie, Natchez; Dr. James L. Salmon, Greenville.

Dr. W. K. Sharp, regional consultant, United States Public Health Service, New Orleans, visited the State Board of Health on June 18.

The need for child health work was stressed to Jackson business men when Dr. Felix J. Underwood addressed the Rotary Club on "The Child Health Balance Sheet."

A two weeks' training school for technicians opened at the Board of Health's hygienic laboratory June 21, under the direction of Miss Aimee Wilcox, native Jacksonian, now associated with the National Institute of Health in Washington. Attending the institute were Mrs. Fannie L. Fenn, Hattiesburg; B. C. Gillis, Moorhead; J. A. LeDieu, Cleveland; Miss Mercedes McConnell, Clarksdale; Mrs. Ellen W. Cottrell, Tupelo; Miss Rosalie Signa, Vicksburg; Miss Margaret McCraven, Yazoo City; Mrs. Marilu Griffin, Amory; Mrs. Retus B. McEvilly, Cleveland; Mrs. R. A. Clanton, Grenada; Miss Guinnever Hoffman, State Board of Health, New Mexico; Misses Joy King, Doris Ash, Julia Stokes, Rosa B. Howard, Mrs. W. C. Hinkle, Jackson; Dr. and Mrs. O. Simmons, Newton; Miss Margaret Mallette, Miss Helen Hall, Vicksburg; Miss Dixie Dell Whittington, Poplarville; Mr. J. A. Burris, University of Chicago; Miss Narion Eaton, Canton.

On June 15, Dr. Underwood attended the meeting of the Northeast Mississippi Thirteen Counties Medical Society at Houston.

During the first week of June, Dr. R. N. Whitfield, Director of Vital Statistics, and Mr. Z. E. Oswalt. field representative, held a series of six conferences over the state regarding birth and death registration problems. Discussions with county and district registrars and WPA enumerators were held at Indianola, Batesville, Tupelo, Philadelphia, Laurel and Brookhaven.

Stimulated by these meetings, workers aim at 100 per cent registration of births and deaths.

Mrs. Eva Moore Adams, supervisor of health education, and Miss Gladys Eyrich, supervisor of mouth hygiene, attended the summer board meet and institute of the Parent Teachers Association in Hattiesburg June 15. Mrs. Adams addressed the group on "Responsibility for Health Education in the Home." On June 25, Mrs. Adams addressed a group of negro women at Jackson College on "Health Education."

Miss Ora E. Phillips, advisory nurse, is enroute to London to attend the International Convention of Public Health Nurses. On her return, she will study communicable disease control at the Herman-Keifer Hospital, Detroit, Michigan, and at the Chas. V. Chapin Hospital, Providence, Rhode Island, for a period of three months before resuming her work in Mississippi. This travel scholarship for observation and study was granted by the Commonwealth Fund of New York upon the request of the Mississippi State Board of Health.

Mr. Thos. T. Brackin, Jr., Starkville, graduate in entomology at Mississippi State College, is a new member of the Board of Health's personnel and will work in the division of malaria control. Before beginning his duties, Mr. Brackin will take three months' training in malaria work, studying with the U. S. Public Health Service, Savannah, Ga.; U. S. Department of Agriculture Research Laboratory, Orlando, Fla.; Rockefeller Foundation Malaria Research Laboratory, Tallahassee, Fla.; Dr. S. F. Strain, Health and Safety Division, TVA, Wilson Dam, Ala.

On June 28, 29, 30, H. A. Kroeze, director of sanitary engineering, attended the meeting of the Advisory Milk Committee of the U. S. Public Health Service called by the Surgeon General in Washington. The week prior Mr. Kroeze was sent by the Commonwealth Fund for consultation and observation in sanitary engineering in Alabama, Georgia, and North Carolina.

After completing a nine months' scholarship at Harvard given by the U. S. Public Health Service, Mr. C. M. Ledbetter has resumed his duties as assistant sanitary engineer.

On July 12, Dr. N. M. Parker will attend a four-day seminar in Chicago on public health control of milk supplies.

Health broadcasts over WJDX during June were as follows: June 5, "Some Questions About Your Baby's Teeth, Health, and Happiness," Dr. C. A. Moore, Lexington; June 12, "Fathers Are Parents Too," Mrs. Eva Moore Adams; June 19, "Quackery—A Menace to Public Health," Dr. Felix J. Underwood; June 26, "Mississippi Prepares to Stamp Out Syphilis," Dr. D. V. Galloway, Director of Lauderdale County Health Department, Meridian.

Jackson, Felix J. Underwood,
July 3, 1931. Executive Officer.

STATE OF MISSISSIPPI, DEPARTMENT OF EDUCATION, REHABILITATION DIVISION

Mrs. J. F. McDougal, Supervisor Crippled Children's Service
P. O. Box 17, Jackson, Miss.,
July 8, 1937

Dear Doctor:

This is to announce to you the opening of a temporary clinic for cases of infantile paralysis that have developed in Mississippi since January 1st, 1937. The clinic will be held in the old hospital building on the old Asylum grounds in North Jackson and will open about July 15th.

We are very anxious to have these children brought to the clinic between the seventh and tenth day, since much better results can be obtained by early treatment.

Please make application on one of the enclosed blanks for such cases as you want entered in the clinic. Send application blank to this office as soon as possible. Then you and the parent of child will be notified of the date for admittance.

The patients should be at the clinic by 9 o'clock of the date set. It will then be possible for them to return home the same day. Not more than two persons should accompany the child, and these two should make arrangements for their meals, as meals will be furnished in the clinic only to patients.

As you know, these services are made available by the State Board of Health, the American Red Cross, and the federal Crippled Children's Bureau. However, parents or local communities will have to arrange for transportation to and from Jackson.

In transit to and from clinic, every precaution should be taken that no contacts are made with other persons. Please caution parents to this effect, and let them know that the State Board of Health is relaxing its quarantine for the sake of the children already affected, but not to endanger lives of others.

We shall appreciate thoroughly your hearty cooperation in this work.

Yours sincerely,
Mrs. J. F. McDougal, Supervisor,
Crippled Children's Service.

APPLICATION TO POLEMYELITIS CLINIC

Date: ....

Crippled Children's Service
Old Capitol Building, Box 17
Jackson, Misssissippi

I hereby make application for treatment in the Poliomyelitis Clinic in Jackson for the following patient:

Name: ....
Age:.......... Sex:.............. Race:..............
Date of Onset: ....
Name of Parent or Guardian: ....
....
Name of Physician Reporting Case: ....
Address: ....
....

Signed:..............................
Parent
....
Physician

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCEITY

A regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, July 13, with eighteen members and fifteen guests present.

PAPERS AND DISCUSSIONS—SUBJECT: PEDIATRICS.—John H. Dent, Vicksburg, Chairman.

1. CHILDHOOD TUBERCULOSIS. — Dr. John Signorelli, Professor of Pediatrics, Louisiana State University Medical Center, New Orleans. Discussed by Drs. F. M. Smith, W. E. Noblin, W. P. Robert, N. C. Womack, John H. Dent, and W. H. Scudder. Dr. Signoreli closed.

2. METHODS OF RESUSCITATION OF THE NEWBORN.—Dr. Isadore Dyer, Vicksburg. Discussed by Drs. R. A. Street, Jr., W. P. Robert, and John Signorelli. Dr. Dyer closed.

3. THE USE OF SULPHANILMIDE IN STREPTOCOCCUS INFECTIONS OF CHILDREN.—Dr. John H. Dent, Vicksburg. Discussed by Drs. R. A. Street, Jr., and John Signorelli.

4. CASE REPORT.—Staff of the Mississippi State Charity Hospital: Duplex Uterus with Retention of Menstrual Discharge of One Side, in a White Girl of 14 years.—Dr. Nathan B. Lewis.

Dr. Lewis presented a report of the clinic conducted by this Society at the Mississippi State Charity Hospital.

The Society adopted resolutions having to do with the diagnosis and prevention of rabies.

The next meeting of the Society will be held at the Mississippi State Charity Hospital, August 10, at 7 p. m. The meeting will be devoted to the subject of Public Health. The Committee in charge consists of Drs. F. M. Smith, Vicksburg, chairman; A. K. Barrier, Rolling Fork; W. H. Scudder, Mayersville; T. W. Huey, Grace; H. S. Goodman, Cary.

OUT PATIENT CLINIC OPERATED UNDER THE DIRECTION ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY MISSISSIPPI STATE CHARITY HOSPITAL REPORT FOR THE YEAR, JULY 1, 1936 TO JULY 1, 1937

Collections (Registration fee of 25 cents),	$1,288.25
(Average fee collected per patient visit, 13½c)	
Disbursements	$1,264.19
Balance on hand	$ 24.06
Total patient visits (3857 persons)	9,576
Daily average	26
Total patient visits on clinic days	7,636
Daily average	38
Classification:	
White male	1,631
White female	2,036
Colored male	2,516
Colored female	3,413
Services:	
Medical	1,582
Surgical	1,233
Obstetrical	561
Gynecological	481
Eye, Ear, Nose and Throat	922
Orthopedic	145
Pediatric	300
Genito-urinary:	
Venereal	2,010
Non-venereal	187
Seen in clinic, admitted to hospital,	2,166
TOTAL	9,596
Sources of Patients:	
Mississippi Counties:	
Adams	4
Amite	6
Alcorn	1
Attala	1

Bolivar	1
Coahoma	51
Copiah	11
Claiborne	342
Covington	1
Clark	1
DeSoto	2
Forrest	8
Franklin	1
George	1
Hancock	1
Humphrey	67
Hinds	228
Holmes	6
Issaquena	173
Jefferson	27
Leake	5
Letlore	25
Lincoln	1
Lauderdale	1
Madison	2
Montgomery	3
Neshoba	1
Pike	2
Panola	2
Quitman	36
Rankin	2
Scott	3
Sharkey	204
Sunflower	98
Simpson	1
Smith	1
Tallahatchie	1
Tunica	4
Washington	251
Warren	7,365
Winston	3
Wilkerson	1
Yazoo	251
Other states	61
TOTAL	9,596

Patients from other states:

Alabama	5
Arkansas	7
California	3
Georgia	1
Kentucky	1
Louisiana	24
Missouri	1
Nebraska	1
New York	1
Oklahoma	1
Tennessee	3
Texas	3
Washington	1
Transient	8

TALLAHATCHIE COUNTY MEDICAL SOCIETY

The regular meeting of the Tallahatchie County Medical Society met in regular monthly session on the banks of Patterson Lake. Those attending were: Dr. T. F. Clay and family and Dr. J. G. Backstrom, Tutwiler; Dr. G. C. Denson, Vance; Drs. L. G. and J. D. Biles and their wives, Sumner; Dr. J. A. Harris and wife, Webb; Dr. R. D. Byard, J. E. Powell, D. G. Bardwell and J. W. Moody and wives, Charleston; Dr. C. E. Pate, Tutwiler; Dr. Townsend, Webb; Miss Hundnall, county nurse, Mrs. Dewess, mother of Mrs. L. G. Biles, John Mitchell, Charlie Powell and Lonnie Shives, Charleston. The party enjoyed boat riding, and target shooting, followed by a sumptuous dinner of brunswick stew, fish and many other good eats.

Everybody expressed themselves as having a good time.

The next meeting will be at Webb.

Charleston, J. W. Moody,
July 14, 1937. County Editor.

DESOTO COUNTY

Rufus Ralph is the name of a son born to Mr. and Mrs. David Hughes of Oxford on the 29th of April, 1937. Mrs. Hughes was Ruth, the charming daughter of Dr. and Mrs. J. A. Rhodes of Horn Lake. The baby and parents recently visited in Horn Lake.

Dr. Denver C. Funderburke, Olive Branch, and Dr. A. Vernon Richmond, Lake Cormorant, were in Memphis recently on business.

Dr. and Mrs. O. C. Brewer, Robinsonville, Dr. and Mrs. W. D. Casey and Dr. and Mrs. C. M. Hammond, Walls, visited the Bluff City to hear Jeanette McDonald and Nelson Eddy in "May time." I had the pleasure of hearing this beautiful music three times.

Drs. A. L. and C. W. Emerson, H. M. Wadsworth and J. M. Wright, Hernando, have a clinic for the pre-school children of that community.

The idea of Dr. P. W. Rowland of the University in increasing the number of volumes in the library is an excellent one. This is a fine opportunity for the physician to help in this good work, especially the medical library. Professor Rowland will be glad to advise you further in this matter.

Miss Jane Redmond, R.N., is the county nurse. She is a lady of pulchritude and attainments, an alumna of the Baptist Memorial Hospital Memphis and is always busy in her chosen work.

Richard, the only child of Dr. and Mrs.

I. G. Duncan of Memphis, was killed instantly in a bicycle accident July 6 in Germany. Dr. John Frank of Vanderbilt University was sponsoring the tour of 22 boys through Europe. Your county editor and wife were very solicitous as their son, Lancelot, was a member of this group. We deeply sympathize with Dr. and Mrs. Duncan in their sore bereavement. They seem to be heart-broken, but "earth has no sorrow that Heaven can not heal."

One of the great forward steps in surgery was the discovery of the anesthetic effects of ether in 1842 by that distinguished physician, Crawford W. Long of Georgia. The Crawford and the Long families are well known in that state.

Route 4. L. L. Minor,
Memphis, Tenn. County Editor.
July 12, 1937.

FRANKLIN COUNTY

A recent marriage of interest to their many friends was that of Thomas Lofton of Lucien and Miss Elsie Kincaid of Coffeeville. Thomas is the only son of the late Dr. A. C. Lofton. They are making their home at Lucien where he is looking after his mother's extensive farming interests.

On June 18, Mr. Wylie Wentworth, of Bude, married Miss Lillian Costley, of Meadville, who is a daughter of Dr. and Mrs. L. Costley. The bride has been a teacher in the Bude Public School for several years. The groom owns and operates a filling station in Bude, where they are making their home.

Mr. and Mrs. Sherrod Towns of the Louisiana State University Music Department have been recent visitors in the home of Dr. and Mrs. S. R. Towns of Quentin. From there, they went to Birmingham, Ala., for a week's visit with Mrs. Towns' parents, and then on to Ann Arbor, Mich., where they plan to study during the summer.

Miss Lucia Connerly of Clinton, has been a recent visitor in the home of her sister, Mrs. Mullins of Bude.

Quentin S. R. Towns,
July 6, 1937. County Editor

HUMPHREYS COUNTY

Dr. H. L. McCalip, Yazoo City, was a recent visitor in Belzoni.

The field service unit of the State Board of Health was represented in June in this county by Dr. J. A. Milne.

Dr. and Mrs. J. W. Barkley and children have returned from their vacation. They visited her relatives in Chalybeate, Tennessee, and spent several days at Reelfoot Lake.

On July 1, Mrs. Robert Jackson made a short but delightful visit to New Orleans with one of her favorite girl friends.

Miss Phyllis Cruze, Shelby, is visiting Dr. and Mrs. T. J. Barkley in Isola.

Mrs. Ben Jackson, Aberdeen and Memphis, is visiting her son, Dr. J. W. Jackson.

Belzoni, J. W. Jackson,
July 5, 1937. County Editor.

LEAKE COUNTY

Some interesting things have happened since our last report. The writer, due to a spell of ptomaine poisoning, has been out of pocket for some time. Dr. B. R. Wilson, the most active man in this town has been out for six weeks from a double herniotomy, while Dr. W. S. Martin, our county health officer, is now in bed with a drainage tube in his gall bladder, just returned from the Infirmary in Jackson, and Dr. B. E. Vowell of Edinburg, another valued member of the profession, is down with rheumatism. Dr. Wilson has had Dr. Joe M. Chisolm (just completing internship at the Baptist Hospital in Memphis) taking care of his work while he was out. Dr. Wilson is now back at his office and busy as a bee.

We had Dr. Robert A. Strong of Tulane University with us last week in a series of lectures on pediatrics. Dr. Strong is not only well informed on his subject, but is an interesting and instructive lecturer. His course of lectures is bound to do much toward enlightening and modernizing the rural and small town practitioner who is unable to get away for postgraduate work. The doctors of every county in the state should avail themselves of his course of lectures.

It seems that our county is in a hot race for leadership in poliomyelitis. So far twenty cases have been diagnosed and nineteen of them confirmed by later paralysis. Not much exaggeration about that, altho it has reached serious proportions.

We have lost two of our members this year. Dr. Savell of Lena moved to Jackson and Dr. McNeal of Dossville is now located at Moorhead, leaving us fifteen remaining in the county. All of them seem to be doing well so far as work is concerned.

The writer intended calling on the editor while on a visit to the Vicksburg Charity Hospital last week, but was so crowded for time, just didn't have time. One of these times while inspecting the institutions under the direction of our eleemosynary board, we are going to take a day off and visit all of the Vicksburg hospitals, of which we've heard so much favorable comment.

We are all reading *The Mississippi Doctor* with increasing interest.

Carthage, H. H. Puryea,
July 6, 1937. County Editor.

LEFLORE COUNTY

At the regular meeting of the staff of the Greenwood Leflore Hospital, Thursday, June 3, a nice supper was served to sixteen doctors present. Drs. R. B. Yates, R. E. Wilson, and L. B. Otken reported interesting cases.

Dr. Albert C. Kimbriel, Drew, visited in Greenwood, June 3.

Dr. and Mrs. L. H. Hightower, Itta Bena, went to M.S.C.W. to see their daughter, Louise, graduate on June 4.

Miss Marjorie Yates, daughter of Dr. and Mrs. R. B. Yates, has returned from Sophie-Newcomb, New Orleans.

Dr. and Mrs. J. W. Lucas, Moorhead, and daughter, Mrs. Holaday, were here June 5.

Dr. and Mrs. W. E. Denman visited relatives in Memphis and Blytheville, Ark., recently.

Dr. W. L. Ervin, Inverness, visited Greenwood, June 6.

Dr. C. N. Tate, Hot Springs, visited his sister, Mrs. C. T. Womack, here June 9.

Dr. and Mrs. D. C. French, Water Valley, visited relatives here June 10.

Dr. J. C. Pegues has returned from Oklahoma City and reopened his office here.

Dr. and Mrs. A. L. Gray, Tupelo, visited Greenwood, Saturday, June 12.

Miss Hilda Hakin, Beriut, Syria, a nurse studying health problems in the United States through the Rockefeller Foundation, visited the Leflore County Health Unit with Dr. Geo. E. Riley, state director of malaria control, June 11.

Dr. and Mrs. R. B. Yates, and Miss Marjorie, visited in Louisville lately and also spent a week on the Gulf Coast fishing.

Among the doctors visiting Greenwood during the month were Dr. Paden of Charleston, S. C., Dr. and Mrs. W. J. Yongue, Lafayette, La., Dr. J. E. Heard, Shreveport, Dr. and Mrs. E. W. Holmes, Winona, and Dr. Shackelford, Greenville.

At 6:30 p. m., June 17, at Schlater, Miss Eddie Erline Russell was married to Dr. Rogers Mayo Flint, Newton. Dr. M. L. Flynt, Chattanooga, was best man, and Dr. Paul Parker, Meridian, one of the groomsmen. Dr. and Mrs. M. L. Flynt, Meridian, father and mother, were also present.

Dr. and Mrs. I. B. Bright have returned from New York after a month's visit.

Dr. Fred Sandifer, Jr., was away a week fishing on the coast recently.

Dr. Gwin Mounger has been to New Orleans on a visit recently. He has passed the examinations of the State Board of Health, and will locate in Yazoo City.

Greenwood, W. B. Dickins,
July 2, 1937. County Editor.

SUNFLOWER COUNTY

Dr. O. P. Myers, a surgeon, formerly of New Orleans, has located in Indianola.

Dr. I. B. Trapp, who recently completed a postgraduate course in public health at Harvard, spent several days in Sunflower County.

Dr. B. J. Green, who formerly practiced medicine in Drew, has moved to Florida.

Dr. Robert Strong, professor of pediatrics at Tulane University, spent a week in Indianola giving a course of postgraduate lectures to the physicians of Sunflower, Washington and Humphreys Counties.

Dr. A. L. Anderson, field clinician from the State Sanatorium, held a tuberculosis diagnostic clinic in Sunflower County during the month.

Indianola, H. B. Cottrell,
July 3, 1937. County Editor.

TIPPAH COUNTY

Lorenza Adams, son of Dr. R. M. Adams, Ripley, and Huming Mayfield, son of Dr. Jas. I. Mayfield, Blue Mountain, who have been having a few weeks' rest from study in the Medical Department of the University of Tennessee, Memphis, are going back this week to resume work.

Miss Victoria Adams, Memphis, visited her parents here for a short stay last week.

Miss Eudora Murry, recently graduated from Peabody College, will join Miss Mary Miller Murry, her sister, now in Peabody, this week-end. They, in company of some schoolmates, expect to spend a few days in Great Smokies, next week.

Miss Sallie Burns, Portland, Oregon, granddaughter of Dr. Jno. Y. Murry, has been here this week, much to the pleasure of her many relatives and friends.

Mrs. J. E. Tate has been with her mother in Fairfield, Maine, for some days. Dr. Tate expects to drive up for her, planning to leave the 10th. The trip will likely take two weeks and should prove a pleasant outing.

Dr. C. M. Murry has been reappointed county health officer, a position he has filled some ten years. During this time our people have been awakened to the possibility of prevention of typhoid fever and diphtheria until 'tis rare indeed for either to be reported. Colitis has been widely reported in this county, as have been malarial cases, many of which evidently are carry-overs. Our people are not thoroughly awakened to needs of good screens, and as there are so many water holes in our little bottoms, we are likely to sometimes have recurring cases until people fully realize the need of following up all malarial attacks, as well as screening.

Schools are expected to open next week, when 'tis quite likely we will have outbreaks of many children's diseases, calling for preventive suggestions, and efforts.

We were sorry not to be able to be in Booneville, Monday, the 5th, when Dr. Carr of Memphis was to hold a heart clinic, and thank those in charge for invitation to come, with any patient we might bring. We feel grateful indeed to be living in this era of fellowship, and to have to opportunities for improvement such occasions offer.

Ripley, C. M. Murry,
July 8, 1937. County Editor.

WINSTON COUNTY

Dr. W. W. Hickman, Noxapater, our new county health officer, was on the streets this week.

We have had two cases of "polio" in our county, one about 15 miles out on the Starkville Road, the other here in the city.

Dr. H. B. Wadkins, Noxapater, was in the city on business this week.

Dr. C. A. Kirk, Mashulaville neighborhood, was on the streets carrying his usual smile and cheer.

Dr. T. C. Suttle, Beth Eden neighborhood, was in on business this week.

Most of our doctors are getting rest, sickness temporarily giving away.

Dr. E. Lovorn was in the city this week.

Louisville, M. L. Montgomery,
July 8, 1937. County Editor.

HOSPITAL STAFF TRANSACTIONS

KING'S DAUGHTERS' HOSPITAL
GULFPORT

The staff of our hospital met Tuesday, June 15, and elected officers for the coming year. Dr. C. A. McWilliams was reelected president, and Dr. E. E. Sheeley, secretary.

Our pet procedure now is an attempt to elevate the standard of our school of nursing to the requirements which enable our is very active in this and through their interest Mrs. Alice Finley, secretary of the State Board of Examiners, met with the staff and discussed standards of curriculum. An agreement was made that all the required subjects would be taught and theory would be emphasized. Four of our students entered Charity Hospital today for a nine months' affiliation in infant feeding, pediatrics, communicable dseases, and psychiatry.

We have adopted a collection method by which we do not run any accounts on our books. A payment is made by the patients having private rooms, with the understanding that all bills must be satisfactorily paid before the patients leave the hospital. Charity patients are to be more carefully investigated by a committee of the staff and the hospital board before accepting the patient.

Cummings McCall, son of Dr. C. H. McCall, was operated upon for acute appendicitis.

Dr. E. C. Parker will be away for a few weeks in August, going to New Mexico for a vacation. Mrs. E. C. Parker and son are in Canada and will join Dr. Parker in New Mexico. In addition to this, our doctors like the rest, spend most of their time fishing or sailing.

Gulfport, Sallie Taylor,
July 1, 1937. Superintendent.

MARTIN SANITORIUM

Dr. S. S. Kety of Charity Hospital and New Orleans is now associated with Martin Sanatorium.

Dr. V. B. Martin will be vacationing in Kentucky and Indiana and neighboring states during the summer.

Picayune, V. B. Martin,
July 3, 1937.

VICKSBURG HOSPITAL STAFF MEETING
July 8, 1937

1. Case Report: Aortic Stenosis with Calcification, Cereberal Embolus and Probable Subacute Bacterial Endocarditis.—Dr. W. K. Purks.
2. Review of Current Literature.—Staff.
3. Demonstration of X-Ray Films.—Dr. W. K. Purks.
4. Lunch
5. Adjournment

ABSTRACT: AORTIC STENOSIS WITH CALIFICATION, CEREBRAL EMBOLUS, AND PROBABLE SUBACUTE BACTERIAL ENDOCARDITIS

W. K. Purks, M.D.

R. N. Clinic No. 3808. A white married male, age 46, was first seen on March 22, 1937, complaining of paralysis of the left arm and leg of nine weeks' duration.

His family history was irrelevant. Marital history likewise was non-contributory. His past history was negative for syphilis, rheumatic fever and chorea. During service over seas in 1917 he had influenza without apparent complications. He had suffered with a number of attacks of severe sore throat over a period of years and covering the ages from about twenty-one years to thirty years. He had, however, been accepted for enlistment in the army without delay. He states that at the time of his discharge from the army in 1918, one physician listened to his heart and quizzed him about over-smoking, indicating that he found some trifling abnormality in the heart. Later, however, the patient was accepted for insurance.

His present illness dated from November 7, 1936, when he had a chill. He took some proprietary medicine and not obtaining relief after a few days consulted a physician and was hospitalized. He remained in the hospital for one month. He was treated for malaria, typhoid fever and undulant fever, though no specific diagnosis was arrived at. The chief characteristic of his illness was persistent low grade fever. The patient was finally allowed to return home and remain in bed until January 1, 1937, and then returned to light work. On January 12, 1937, while sitting at his desk, he suddenly lost control of his left arm, which fell limp at his side. His left leg failed also and he slumped forward in his chair. He did not lose consciousness. He was again hospitalized and remained in the institution for five weeks. During this stay he had slight rises of temperature. He also had multiple small subcutaneous abscesses, which may possibly have been due to bromide medication which he was taking at that time. At the time of his discharge from the hospital, the paralysis of the left arm, leg and face was complete. He was treated by potassium iodide by mouth and bismuth injections.

Physical examination on March 22, 1937, when he first came under my observation, showed a well developed and well nourished man of stated age. He lay on his back in bed, unable to use his left arm and leg. Temperature was 99 3-5 degrees Fahrenheit. His pulse and respirations were normal. Complete examination disclosed the following significant findings: there were no petechiae either in conjunctivae, mucous membrane or skin. There was a loss of normal facial line on the left and a paralysis of the left facial muscle. The lungs were normal throughout. The cardiac impulse was not seen and was poorly localized on palpation. Percussion showed the left border of cardiac dulness to be 9.5 centimeters to the left of the midsternal line. Auscultation showed the heart sounds to be of fair quality and heart action regular. There was a systolic murmur, (grade 3), at the apex. The same murmur was present over the base, where it was more intense, being graded three-plus at that point. It was harsh and rasping in quality. After forced expiration, careful palpation over the upper sternum showed a definite systolic thrill accompanying the murmur. The blood pressure was 130-80. The pulse was of good volume and regular in action. Examination of the abdomen showed one healing subcutaneous abscess in the left upper quadrant. The spleen was not palpable.

Laboratory studies: The urine on several occasions showed a slight trace of albumin and rare fresh red blood cells. The blood count was normal except for an increased polymorphonuclear count, which was 87 percent. The Kahn test on the blood was negative. Two blood cultures were negative. The electrocardiogram showed left axis deviation.

Subsequent course: In spite of the negative blood culture, the patient was given five intramuscular injections of prontosil (5 c.c. each). Passive exercise of the paralyzed parts resulted in some improvement in muscle tone. Other treatment consisted entirely of general nursing care and a high caloric diet. The patient gradually regained partial use of his arm and leg and on June 2, 1937, was able to report at the clinic for x-ray examination of his chest. Under the fluoroscope, the heart appeared slightly enlarged to the left. The aorta was slightly tortuous but not dilated and the posterior mediastinum was clear. In the left anterior oblique view there was easily seen a small mass of calcium obviously within the heart and moving to and fro with each cardiac systole. Its position and character of movement was that described for calcification within the aortic valve.

The patient now has no fever. He experiences no dyspnoea or other cardiac symptoms except slight palpitation. He is emotionally unstable and cries easily. His paralysis is very slowly improving and he is able to be up and around the house and out for an occasional automobile ride. Treatment at present consists solely of potassium iodide by mouth.

VICKSBURG SANITARIUM

A regular monthly meeting of the Vicksburg Sanitarium was held, Monday, July 12, and after a supper served at 6:30 p. m., was called to order by the president, Dr. George M. Street, with thirteen members and three guests present. The program included:

Reports from the Records Department and Analysis of the Work of the Hospital.

Report of Vital Statistics.—Dr. F. Michael Smith, Director, Warren County Health Department.

SPECIAL CASE REPORTS:

1. NEPHROLITHIASIS WITH PYONEPHROSIS; NEPHRECTOMY.—Dr. A. Street.

2. CIRRHOSIS OF LIVER.—Dr. G. C. Jarratt. Discussed by Drs. George M. Street and J. A. K. Birchett, Jr.

3. MENIER'S SYMPTOM COMPLEX AND VERTIGO.—Dr. C. J. Edwards. Discussed by Drs. H. H. Johnston, George M. Street, and L. J. Clark.

MOTION PICTURE—EDEMA, CARDIAC AND RENAL (Courtesy of Winthrop Chemical Company).—Dr. L. J. Clark.

Demonstration of Selected Radiographic Studies: Carcinoma of Pelvis; Metastatic; Pulmonary Tuberculosis (Three Cases); Pulmonary Abscess; Duodenal Ulcer (Two Cases); Ureteral Calculus; Anomaly—Both Kidneys on Same Side; Open Safety Pin in Trachea.

THREE MINUTE REPORTS OF THE LITERATURE OF THE MONTH:

Dr. G. C. Jarratt.—Lichen Urticaria (Papular Urticaria).

The next meeting of the staff will be held Tuesday, August 10, 1937.

ABSTRACT: CIRRHOSIS OF THE LIVER, G. C. JARRATT, M.D

PATIENT.—White, male, age 2 months; first seen in clinic April 2, 1935.

CHIEF COMPLAINT.—Yellowish color of skin; fever.

HISTORY.- Mother stated that since birth infant had always had yellowish discoloration of skin; no variation in intensity. Stools clay colored, at times yellow and at other times greenish. Urine has had deep brown discoloration. Some fever since birth, highest past two or three days; never over 101 degrees F. Some spitting up and at times vomiting since birth. In last two weeks has had several generalized convulsions, more frequent for past three or four days. Umbilical cord separated and healed with no evidence of infection.

BIRTH HISTORY.—Normal cephalic delivery with forceps; no cyanosis; weight 5½ pounds; full term.

FEEDING HISTORY. — Breast for two weeks, then breast followed by evaporated milk with water. For past two weeks condensed milk one ounce, water three ounces, every three hours.

PHYSICAL EXAMINATION. — Tempera- 100 degrees F.; Weight 7½ pounds. Well developed but poorly mourished. Marked greenish-yellow discoloration of skin. Eyes show marked yellowish discoloration of sclera. Spleen two fingers' breadth below costal margin. Liver greatly enlarged, reaching umbilicus in midline and crest of ilium laterally, soft and not nodular.

CLINICAL LABORATORY.—Blood: culture negative two months; hb. 87 per cent; erythrocytes 3,320,000; coagulation time 1½ minutes; leukocytes 20,000; platelets 260,000; differential leukocyte count, lymphocytes 72 per cent, polymorph neutrophils 25 per cent, polymorph eosinophils 3 per cent; no malaria found. Wassermann, Kahn, Kline and Young tests negative. Icterus index 27 (normal 3 to 5). Van den Bergh, direct 18.7 mg.; serum bilirubin 16 mg. Fragility of erythrocytes, no hemolysis at two hour period.

FECES: No urobilin; bilirubin present.

URINE: Slight trace of albumin; no uribilin; rare hyaline and granular casts; rare abnormal fresh blood cells; large trace of bile.

ADVICE.—Exploratory operation for possible correction of some partial atresia of extraphepatic bile ducts.

Patient did not return until June 14, 1937, more than two years later. Mother stated infant had never been able to walk and did not sit alone until one year of age. No jaundice for past year. Stools at times clay colored but most of time yellow or brownish-green.

PHYSICAL EXAMINATION.—Poorly developed and very poorly nourished. Muscles flabby. Large protuberant abdomen with marked caput medusa. Spleen not palpated. Liver two fingers' breadth below costal margin and very hard; no nodules made out.

CLINICAL LABORATORY.—Blood: hb. 87 percent; erythrocytes 5,180,000; leukocytes 3,400; differential leukocyte count, lymphocytes 59 per cent; polymorphonuclear neutrophils 36 per cent, polymorphonuclear eosinophils 5 per cent; coagulation time 3 minutes; no malaria found. Van den Bergh, no direct reaction. Serum bilirubin less than 2 mg. Fragility of erythrocytes, hemolysis began at 0.38 percent, complete at 0.28 percent. Icterus index 15.

Urine: normal; no bile.

Feces: amylase and trypsin present; urobilin present.

EXPLORATORY OPERATION.—By Dr. A. Street June 16, 1937. Liver enormously enlarged, stony hard and nodular. Specimen of liver obtained for microscopic examination. Epiplopexy and cholecystotomy performed. Abdomen closed.

Microscopic examination of section of liver showed marked cirrhosis, some fatty degeneration and hepatitis chronic.

SUBSEQUENT.—Uneventful recovery from operation. Discharged on 15th day postoperative. At times normal bile drainage from gallbladder and at other times clear watery fluid.

ABSTRACT: MENIERE'S SYMPTOM COMPLEX AND VERTIGO

C. J. Edwards, M.D.

Because of the uncertainty still present concerning the etiology of Meniere's syndrome, because of poor results from the accepted modes of treatment, and because of good results reported by Dida Dederding in eliminating attacks by producing dehydration, A. C. Furstenberg, F. H. Lashmet and F. Lathrop attempted to repeat the observations of Dedering as accurately as possible.

After reading the above doctors' papers I saw the possibility of relieving some patients who were under my care. The following are case reports of from one to six month's observation.

No. 1.—Mrs. W. H. M., age 65, widow, was referred to me with symptoms of tubo-tympanitis, vertigo with nausea and vomiting and attacks of falling out at the rate of one or two attacks weekly. Her physical findings were comparatively negative with the exception of secondary anemia, the red blood cell count being less than three million. Her physician put her on a general tonic with liver extract, calcium and a mild laxative. The vertigo and nausea and vomiting attacks did not improve. She was referred to me Sept. 7, 1936, and I found tubo-tympanitis in both ears, the left worse than the right; both drums retracted and cone of light missing; slight excursion of the drum with the use of otoscope; tuning forks heard from 512 vibrations up in both ears; air conduction and bone conduction about equal. Examination of the nose showed a deviated septum; a large spur low on the left side; a pair of small imbedded tonsils with cryptic concretions.

A bland oil was prescribed for the slight turgid condition of the mucous membrane and ten grains of sodium iodide intravenously were given every other day for ten doses. There was a slight improvement until the middle of November. I requested a consultation which was had in Memphis. With the x-ray and audiometer as well as physical examination a diagnosis was made of Meniere's disease with a possible tumor of the auditory nerve, left side. The audiometer reading gave one-third loss of hearing in the left ear and one-fourth loss in the right. This patient was put on a salt free diet in December and up to date has not had an attack of the vertigo, nausea or tubo-tympanitis. Last examination was on June 22, 1937, and she had gained ten pounds in weight in this period of time.

No. 2.—Mrs. C. P. D. age 64, married. In December, 1936, developed vertigo, tubo-tympanitis, nausea and vomiting with attacks. Would come on either in bed or while up. She was treated in Chicago for this condition for a period of three months. On March 30, 1937, I saw her for the first time, and was given the history above. Examination showed left drum retracted, slightly mobile with the use of otoscope; deaf to the low scale of tuning fork and deaf to the high scale, or 1028 vibrations; bone and air conduction about equal. She had a deviated septum to the right, post-nasal discharge and chronic tonsillitis. She was put on calcium and vitamins, a bland oil for her nose, and a salt free diet. She was seen April 6, free of attacks, April 20, still free of attacks and May 11 with return of hearing from 128 to 1028C. tuning fork heard in the left ear and to date is free from all symptoms.

No. 3.—Miss E. D., age 45, bookkeeper, consulted me Jan. 22, 1937, complaining of one or two attacks of nausea and vomiting a week, with vertigo and tubo-tympanitis worse in the right ear.

Examination showed a slightly retracted drum, a turgid rhinitis, slight granular nasopharynx. She was put on calcium a bland oil for nose and a salt free diet. Her symptoms improved, nausea and vomiting left, but the tubo-tympanitis persisted and alternated first in one side and then the other. On March 19, she returned with the reappearance of the tubo-tympanitis only. She had not been following her diet on account of improvement. The tubo-tympanitis was treated per catheter and massage of the drum. Up to May 25, 1937 still on diet. Last examination in June still free of symptoms.

No. 4.—Miss A. L., about age 34, stenographer and bookkeeper, consulted me on April 17, 1937, complaining of vertigo and tubo-tympanitis. Examination of right ear revealed large perforation in the lower half of the drum which is retracted. Large scar in the left drum. Tubo-tympanitis and vertigo.Turgid rhinitis; tonsils missing. Loss of hearing right ear; lower tones heard about 512. The rhinitis was treated with a bland oil; calcium administered orally; salf-free diet given and by June 7, 1937 all tubo-tympanitis had subsided and there were no further attacks.

The three following cases while not manifesting a Meniere's disease have shown rather rapid improvement from tubo-tympanitis with a slight loss of hearing. These conditions indicate symptoms for which I was consulted and quite an extensive amount of pathology has been found.

Mrs. J. M. R., age 45, married, consulted me May 20, 1937, complaining of tubo-tympanitis with vertigo. Examination showed left drum retracted four times that of the right; loss of low scale of 512 C tuning fork; bone conduction plus that of air. Deviated septum; large spur on the left side; granular nasopharynx; thick tenacious mucus; chronic tonsillitis.

She has been on bland oil and syrup of ferrous iodide. On June 3, re-examined and tubo-tympanitis had cleared up and her hearing had returned in left ear.

Dr. F. C. S., was seen May 22, 1937 complaining of vertigo and tubo-tympanitis. Examination showed right drum retracted, slightly mobile under massage. This scondition had been present for more than two months. Loss of hearing to the low scale of tuning forks; bone conduction twice that of air, right ear. Turgid rhinitis; increased shadow of both antra and right frontal; granular nasopharynx. Mild astringent in oil used in nose, salt-free diet was given. By June 5, all vertigo and buzzing of ear had ceased. On June 17, all symptoms had subsided. He has gained six pounds in weight and his blood pressure which was 165-90, has dropped to 144-90 and he is apparently free of all symptoms. He is still on his salt-free diet.

Mrs. E. S. M., age 53, widow, treated off and on for the last ten years for attacks of tubo-tympanitis and rhinitis. She was put on the saft-free diet only and to date has shown some improvement.

Sodium is known to cause water retention and tissue edema in nephritis and its effect in Meniere's syndrome may be similarly due to its tendency to cause tissue edema.

Articles of Furstenberg, Lashmet and Lathrop in the Annals of Otolaryngology, Rhinology and Laryngology of December, 1934, and of M. R. Brown in the Journal of the American Medical Association of April 3, 1937, have been consulted.

HONOR ROLL

The following have contributed to this number of the journal.

COUNTY EDITORS: DeSoto, L. L. Minor; Franklin, S. R. Towns; Humphreys, J. W. Jackson; Leake, H. H. Puryear; Leflore, W. B. Dickins; Sunflower, H. B. Cottrell; Tippah, C. M. Murry; Winston, M. L. Montgomery.—8.

SOCIETIES: Issaquena-Sharkey-Warren Counties; Tallahatchie County, J. W. Moody. —2.

HOSPITALS: King's Daughters Hospital, Sallie Taylor; Martin Sanatorium, V. B. Martin; Vicksburg Hospital, W. H. Parsons; Vicksburg Canitarium.—4.

OTHERS: Felix J. Underwood; Mrs. J. F. McDougal.—2.

GRAND TOTAL.—16.

Printing . . .

We Specialize in Printed Supplies for the Medical Profession

Magnolia Printing & Supply Company

B. W. SANDIFER, Mgr.

Phone 6022

511 E. Pearl St. **Jackson, Miss.**

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tenn.

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

ROBIN HARRIS
Eye, Ear, Nose and Throat
and Bronchoscopy
Lamar Life Building
Jackson, Mississippi

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 6-3288
899 Madison Ave. Memphis, Tenn.

JOHN W. RAGSDALE, M.D.
CHESTER D. ALLEN, M.D.
327 Medical Arts Bldg.
Memphis, Tenn.
Urology and Urological Surgery

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as applied in this field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Memphis, Tennessee
Phones: Off: 6-1923 Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Miss.

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Miss.

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WM. MILTON ADAMS, M.D.
Practice Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tenn.

HENRY G. HILL, M.D.
Clinic, 847 Madison Avenue
Memphis, Tennessee
Practice Limited,
Diseases and Injuries
Bone and Joints
Cripples and Deformities
Braces and
Orthopedic
Appliances

FRANK W. SMYTHE, M.D.
Practice limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-surgery
Physicians and Surgeons Bldg.
Memphis, Tenn.
Phones: Off: 6-3288 Res: 2-9645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tenn.

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tenn.

GILBERT J. LEVY, M.D.
Practice Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap, St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tenn.

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tenn.

DR. Wm. F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Miss.

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Bldg.
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy
Ionization for Hay Fever

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Miss.

T. E. WILSON, M.D.
Practice Limited to Internal Medicine
Office 522 Standard Life Building
Jackson, Miss.

ROBERT H. BRUMFIELD, M.D., F.A.C.S.
General Surgery and Urology
McComb, Miss.

DR. J. W. LIPSCOMB, JR
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Miss.

LAWRENCE W. LONG, B.A., M.D., F.A.C.S.
410-412 Standard Life Bldg.
Jackson, Miss.
GENERAL SURGERY
Surgical Diseases of Children.

F. M. ACREE, M.D.
Greenville, Miss.

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

R. L. DONALD, M.D.
207-8 Miazza-Woods Bldg.
Meridian, Mississippi
Office Hours: 10 to 12 a. m.—3 to 5 p. m.

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians & Surgeons Bldg.
(899 Maddison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
and
Bronchoscopy
Princess Theatre Building
Columbus, Miss.

W. L. WILLIAMSON, M.D., F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

WM. T. BLACK, M.D., F.A.C.S.
Gynecology
Medical Arts Bldg.,
Memphis, Tenn.

DR. J. CASH KING
formerly at John Gaston Hospital
and University of Tennessee
announces the opening of his office
for the practice of RADIOLOGY
902 Madison Avenue
Memphis, Tennessee Telephone 6-7460

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham, Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg.),
F.A.C.S.
Genitourinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

Walter W. Robinson, M.D.

Crisler Clinic

1291 Union Avenue

Memphis, Tenn.

Specializing in

PATHOLOGY

ROENTGEN

DIAGNOSIS and THERAPY

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS Clinical Pathology
MARJORIE WADE, Bacteriology

SHIELDS ABERNATHY, M.D., F.A.C.S.

HOWARD H. ASHBURY, M.D., Oncologist

CLINIC

For General Surgical and

Neoplastic Diseases

Complete Modern Radiological Equipment

1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING

I. G. Duncan, B.S., M.D., F.A.C.S.
J. S. Fleming, M.D.

GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION

Suite 1500-06 Commerce Title Bldg.
Memphis, Tenn.

DUANE CARR, M.D.

Diseases of the Chest

Endoscopy — Thoracic Surgery

Physicians and Surgeons Building

(Baptist Hospital Annex)

Memphis, Tennessee

Telephones: 8-3662; 2-3226; 2-2138

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

Founded in 1879

Allison's Wells

HOTEL - SANATORIUM

Famous through the years for the wonderful properties of its mineral water and as a health resort, Allison's Wells, under the direction of Dr. A. J. Brown this year has become the only sanatorium of its kind in Mississippi.

In addition to maintaining its full popularity as a resort-hotel, Allison's Wells has added a sanatorium department for the treatment of malaria, mild mental diseases, gastro-intestinal trouble, gall bladder trouble, arthritis and other troubles.

The sanatorium, which is guided by a board of governors composed of ethical physicians, is equipped with modern facilities.

For full information and rates, address

ALLISON'S WELLS,
HOTEL - SANATORIUM
On I. C. Main Line between Canton and Durant, on Jefferson Davis Highway.
WAY, MISS.
A. J. Brown, M.D.
"A Source of Health In The Garden Spot of Central Mississippi"

ANNOUNCING . . .

Mississippi's First and Only Complete Surgical Supply House; Carrying a Full Line of Quality Merchandise for Physicians And Hospitals

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St.
Jackson, Miss.

Wheel Chair Rentals
Belts and Truss
Rubber Goods

Physio-Therapy Equipment
Hospital Furniture
Surgical Instruments

Etc.

The Friendly Store of Dependable Service

Why not give us a try next time you have anything to Buy

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 221 North Farrish St.
Jackson, Mississippi

DUCKWORTH DRUG COMPANY
Booneville, Mississippi

Distributors of:

Luminal of Sodium

Tablets and Powder

Novocaine Ampoules

Atabrine

Elixir of Pryamidon

Theominal Tablets

WINTHROP CHEMCAL COMPANY
New York City

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most
Modern Business School

A. S. McCLENDON, President

MEMPHIS' *newest and most conveniently located hotel . . . .*

the Wm. Len

In addition to its famous southern cuisine and luxurious accommodations, the Wm. Len serves its guests an extra measure of genuine southern hospitality.

right down town in Memphis
ON MAIN AT MONROE

Hotel Wm. LEN
MEMPHIS, TENN.
R. E. McEachin, manager

HOUSTON HOSPITAL, Inc., HOUSTON, MISSISSIPPI
Approved: American College of Surgeons and American Hospital Ass'n.

—FULL TIME STAFF—

V. B. PHILPOT, M.D., F. A. C. S.
Surgery and Gynecology
J. R. WILLIAMS, M.D.
X-ray, Superficial and Deep Therapy and Radium

G. G. ARMSTRONG, M.D., F.A.C.S.
Eye, Ear, Nose and Throat

DOUGLAS D. BAUGH, M.D.
Diagnosis and Internal Medicine

LET US . . .

Supply your needs, such as:

- Prescription Blanks
- Laboratory Blanks
- Letter Heads
- Statements
- Envelopes
- Blotters

SPECIAL: 10,000 Prescription Blanks...... $3.50

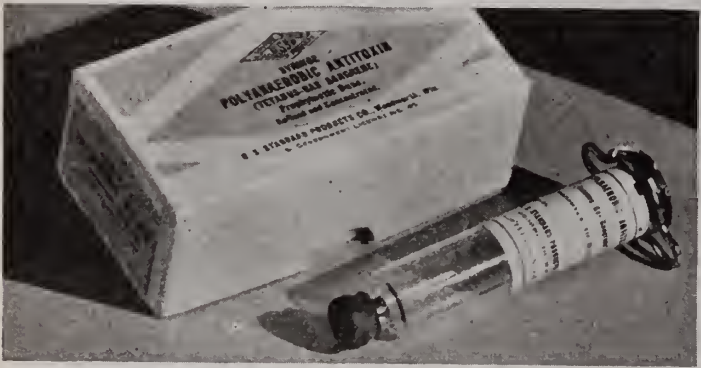
Send your order to

BOONEVILLE PRINTING CO., Inc.
Booneville, Miss.

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

TETANUS

GAS GANGRENE ANTITOXIN



●

Use as a prophylactic agent in cases of compound fractures, lacerated wounds, and post-operatively when indicated, etc.

The contents of one syringe is injected at weekly intervals until the wound is healed.

U. S. S. P. Co. Laboratories are noted for the production of highly refined tetaus antitoxin. Only young, vigorous and healthy horses are used. The antitoxin is sterile and free from toxic fractions.

—Write for full information.—

UNITED STATES USSP STANDARD PRODUCTS

U. S. S. P. Co. Laboratories are operated under U. S. Government license No. 65 in compliance with all regulations of the U. S. Public Health Service.

U. S. STANDARD PRODUCTS CO.

WOODWORTH, WISCONSIN

Building for Better Living

"Building for Better Living"—that's the theme of modern home construction in Mississippi today. It means that the new house, the modernized dwelling should have all the comforts and conveniences of complete home service. If you're planning to build or modernize, ask your appliance dealer to assist you in selecting service features to suit your needs.

MISSISSIPPI POWER & LIGHT CO.

ADMINISTRATION BUILDING

BLUE MOUNTAIN COLLEGE

Blue Mountain, Mississippi

FULL MEMBER OF SOUTHERN ASSOCIATION OF COLLEGES

Write for catalogue and new booklet of campus views.
LAWRENCE T. LOWREY, PRESIDENT

Main Building

NEW FENWICK SANITARIUM

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES

DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association — medical staff specially trained — clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds — homelike environments — located in the healthy and beautiful town of Covington, Louisiana — a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

putnam
rest of
v.15

UNIVERSITY OF
SOUTH DAKOTA
SEP 22 1937
LIBRARY

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, SEPTEMBER, 1937 NO. 4

THE N.Y. ACADEMY
OF MEDICINE
JAN 27 1939
LIBRARY

Dr. George C. Williamson, President of the State Medical Association of Tennessee. He is clever, courteous, courtly, able in his profession, versatile, and endowed with a double portion of Divine elements that constitute human personality.

Research, Constant Research

continues to improve the quality of Mead's Brewers Yeast★ in the following respects, ***without increased cost to the patient:***

1. Vitamin B potency raised to not less than 25 International units per gram.
2. Bottles now packed in light-proof cartons, for better protection.
3. Improved bacteriologic control in harvesting and packing.
4. **And NOW, since August 1, 1936, all bottles are packed in vacuum. This practically eliminates oxidation. Mead's Yeast stays fresh longer, as you can tell by its improved odor and flavor!**

★ A dietary accessory for normal persons, for the prevention and treatment of conditions characterized by partial or complete deficiencies of vitamins B_1 and G, as in beriberi, pernicious vomiting of pregnancy, anorexia of dietary origin, alcoholic polyneuritis, pellagra.

●

Mead's Brewers Yeast Tablets in bottles of 250 and 1,000. Mead's Brewers Yeast Powder in 6 oz. bottles. Not advertised to the public. Samples to physicians, on request.

●

MEAD JOHNSON & COMPANY, Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in the *Saturday Evening Post* and other leading magazines.

Are two pairs of hands enough?

"Our baby will have every advantage."

Of course. But are affection, the determination to give children "every advantage," parental devotion, enough?

No, frankly they are not. The two pairs of hands of even the most conscientious parents are *not* enough to guide a child safely past the hazards that confront her. The little body hasn't yet built up a very sturdy resistance against many of the disease-producing germs we all encounter every day of our lives. She is susceptible to a whole group of illnesses that are visited almost solely upon children—the so-called "diseases of childhood." Her diet, her hours of rest, her health habits—all have an important bearing on her future.

That is why two pairs of parental hands are not enough. A *third parent* should be added to the family circle. That third parent is . . . the doctor.

To be sure, you are quick to get in touch with the doctor when your child is ill. But isn't the youngster really entitled to more than that? Shouldn't she see the family doctor often enough to regard him not as a stranger but as a friend? And shouldn't he know about her previous illnesses and be familiar with her little whims and how to get around them?

Then, too, the doctor should have the opportunity of giving her full benefit of modern *preventive* medicine—consultations about her growth and development, and protection against such diseases as smallpox, diphtheria, and whooping cough.

He, too, should have hold of her little hand, guiding her along the road of health that is every child's right.

COPYRIGHT 1937—PARKE, DAVIS & CO.

PARKE, DAVIS & COMPANY
DETROIT, MICHIGAN
The World's Largest Makers of Pharmaceutical and Biological Products

Here's A **FLEXIBLE** Short Wave

L-F

STANDARD MODEL

Short Wave Generator

TWO METHODS OF APPLICATION!

LIEBEL-FLARSHEIM
Standard Model
Short Wave Generator
——Accepted——
American Medical Assn.
Council on Physio-Therapy

A most acceptable unit for average use. Generally recognized as the best dollar-for-dollar Short Wave value available. Over a thousand now in use—all rendering eminently satisfactory service.

AMPLE POWER is generated for all types of pad and cable therapeutic treatment, including fever therapy. Current for minor office electro-surger is also available.

SIMPLE TO OPERATE—having only a single dial control for each modality—instantly and smoothly regulated—no jumps or steps. Shock proof—an all-purpose unit. Product of electro-medical apparatus manufacturers in business over twenty years.

INDUCTANCE CABLE

—as well as—
CONDENSER-PADS

This choice of applicators enables you to use the method best suited to the part being treated. Condenser-Pads are recommended for use on regular surfaces, and Inductance Cable for irregular surfaces. Either modality is quickly and easily applied.

MODERATELY PRICED—TERMS—Easy payments to suit your convenience will make the installation of this unit virtually a self-liquidating investment.

It will pay you to investigate the many advantages of this unit. It is the only Short Wave generator on the market affording the use of two methods of application, namely, the Inductance Cable and Condenser-Pad applicators—which have stood the test of prolonged use—nearly two years! Literature gives complete details.

THE DICK X-RAY COMPANY

MEDICAL ARTS BUILDING MEMPHIS, TENN.

Tear off Coupon and Mail Today—No Obligation

THE DICK X-RAY CO.
Medical Arts Bldg.
Memphis, Tenn.

Please let me have complete details on the L-F Standard Model Short Wave Generator—without any cost to me.

DR. ____

ADDRESS ____

TCS

Theobromine, gr. 3.40 Calcium, gr. 0.12 Salicylates, gr. 3.48
Phenobarbital, gr. 0.25

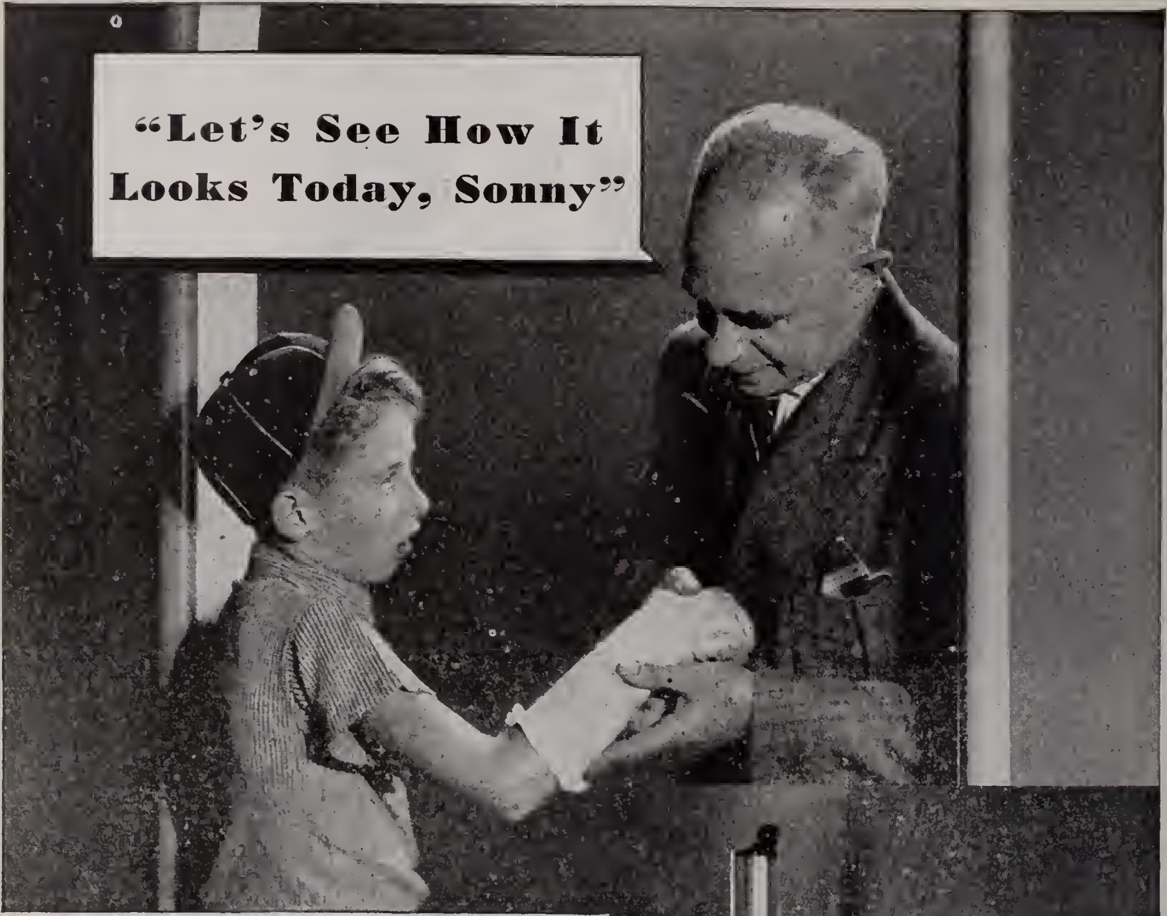
Diuretic, coronary vasodilator, myocardial and renal stimulant and neuro-circulatory sedative.

Indications: Hypertension, angina pectoris, coronary thrombosis, myocardial insufficiency, and edema.

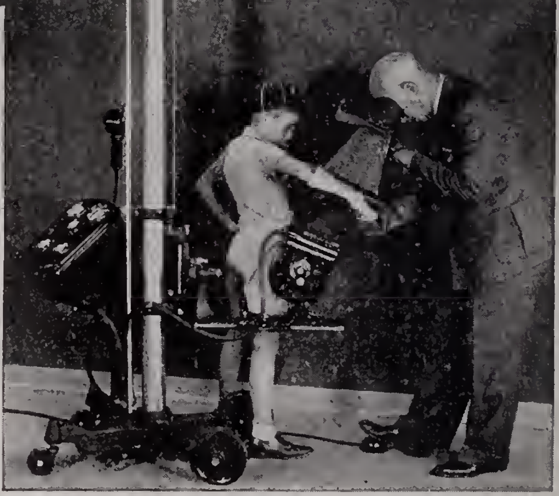
Directions
One to three tablets three or four times daily.

Dispensed in bottles of 50 and 250 tablets

WM. P. POYTHRESS & COMPANY, *Inc.*
MANUFACTURING CHEMISTS
RICHMOND VIRGINIA
POYTHRESS 1856



"Let's See How It Looks Today, Sonny"



EVEN if you limited the use of an office x-ray unit to those occasional simple fracture cases, think of the intense satisfaction and convenience in having it right at your elbow, ready for instant use when you need it.

The G-E Model "D" Mobile X-Ray Unit is a wonderful ally in the handling of fractures—from the moment the case presents itself, on through until it is brought to a satisfactory conclusion. It enables you to *see* immediately the extent of the fracture, guides you in making the setting, and is your dependable "eye" for subsequent check-ups, to observe progress or to detect a possible mishap under the cast.

Easy and convenient to operate, and 100% electrically safe under all operating conditions, you can rely on the Model "D" for an unusually fine quality of work, both radiographically and fluoroscopically.

Why not enjoy, as do hundreds of other physicians, the advantages of a G-E Model "D" in your office? The added convenience to both yourself and your patients, aside from the better professional service that it makes possible, more than justifies the comparatively small investment required.

Without obligation, ask for Catalog No. A 59 . . . . just jot it down on your prescription blank and mail today.

GENERAL ELECTRIC
X-RAY CORPORATION
2012 JACKSON BLVD. CHICAGO, ILL., U. S. A.

Short-Wave Diathermy Unit

STANDARD MODEL
500 WATTS OUTPUT
18 METERS

Standard accessory equipment furnished with the Hogan Brevatherm "Standard Model" includes:

1 pair 5" x 7" condenser plate electrodes
1 pair 7" x 9" condenser plate electrodes
2 pair cuff electrodes (medium and small)
1 felt "build-up" pad for each electrode above
1 pair rubber electrode bandages with fasteners
1 line cord and plug

Treatment cords with jack plugs are attached to each electrode.

THE GWINNER-MERCERE CO.
191 MADISON AVE.
MEMPHIS, TENN.

BAPTIST HOSPITAL
Jackson. Miss.

THE HIGH TOLL OF LATE *syphilis* CAN BE REDUCED

"IT HAS BEEN ESTIMATED[1] that in the United States annually one-half million people with late syphilis seek treatment for the first time. . . ." It is hoped that these figures will be reduced as a result of the many publicity campaigns now under way. These patients will require careful supervision and persistent treatment.

Two Squibb preparations — Neoarsphenamine and Iodobismitol with Saligenin—have been found to be very effective in the treatment of syphilis. Neoarsphenamine Squibb is designed to produce maximum therapeutic benefit. It is subjected to exacting controls to assure a high margin of safety, uniform strength, ready solubility and high spirocheticidal activity. Equally effective when indicated are Arsphenamine Squibb and Sulpharsphenamine Squibb.

Iodobismitol with Saligenin is a propylene glycol solution containing 6 per cent sodium iodobismuthite, 12 per cent sodium iodide and 4 per cent saligenin (a local anesthetic). It presents bismuth largely in anionic (electro-negative) form. Iodobismitol with Saligenin is rapidly and completely absorbed and slowly excreted, thus providing a relatively prolonged bismuth effect. Repeated injections are well tolerated in both early and late syphilis.

For literature address Professional Service Dept., 745 Fifth Avenue, New York, N. Y.

---

[1] Cole, Harold N., *et al.; J. A. M. A.* 108:22, 1937.

E·R·SQUIBB & SONS, NEW YORK
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

ANNOUNCING . . .

Mississippi's First and Only Complete Surgical Supply House;
Carrying a Full Line of Quality Merchandise for Physicians
And Hospitals

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St.
Jackson, Miss.

Wheel Chair Rentals	Physio-Therapy Equipment
Belts and Truss	Hospital Furniture
Rubber Goods	Surgical Instruments

Etc.

The Friendly Store of Dependable Service
Why not give us a try next time you have anything to Buy

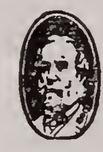
HOYE'S SANITARIUM

"IN THE MOUNTAINS OF MERIDIAN"
Meridian, Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent
Formerly sixteen years Superintendent of East Mississippi State Hospital.



Robert E. Lee Hotel
'The High Spot of Southern Hospitality"
Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager STEWART GAMMILL, Jr., Asst. Mgr.

IN THIS ISSUE

THE TREATMENT OF LATENT SYPHILIS
Seale Harris, Jr., M.D. 1

ORTHOPEDIC TREATMENT OF ACUTE ANTERIOR POLIOMYELITIS
Willis C. Campbell, M.D. 4

ACUTE ANTERIOR POLIOMYELITIS: ETIOLOGY, PATHOLOGY AND DIAGNOSIS
J. F. Hamilton, M.D. 7

EMERGENCY TREATMENT AND TRANSPORTATION OF FRACTURES
Hugh Smith, M.D. 11

THE PURCHASE AND USE OF X-RAY EQUIPMENT BY THE GENERAL PRACTITIONER
J. Cash King, M.D. 13

PRENATAL CARE
J. S. EDMONDSON, M.D. 17

EDITORIALS 19

MRS. KATE P. ANDERSON 24

MISSISSIPPI VALLEY MEDICAL SOCIETY "ANNUAL AWARDS" 24

THIRTEEN COUNTY MEDICAL SOCIETY TO MEET 24

CHAMPION 25

DR. J. M. GOODMAN 25

DR. STROUD IS NAMED TO AID WELFARE BODY 25

ANNOUNCING 25

BEGIN WORK ON BESSIE TAYLOR MEMORIAL SOON 26

LOCATES IN JACKSON 27

NEW MACON HOSPITAL HAS FORMAL OPENING 27

FIFTH INTERNATIONAL CONGRESS OF RADIOLOGY 27

THE NEW PRESIDENT 28

TO THE MEMBERS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION 28

ANNOUNCING 29

APPOINTED HEALTH CHIEF 29

BELOVED PHYSICIAN PASSES AWAY 29

BOOK REVIEWS 30

HELPFUL HINTS IN THE DIAGNOSIS OF GASTRO-INTESTINAL DISEASES
Walter C. Alvarez, M.D. 32

NEW TRENDS IN PUBLIC HEALTH
Felix J. Underwood, M.D. 37

DIFFERENTIAL DIAGNOSIS OF ACUTE CONDITIONS OF THE ABDOMEN
H. N. Mayes, M.D. 41

HERE AND THERE IN THE UPPER AIR PASSAGES
E. LeRoy Wilkins, M.D. 44

MISSISSIPPI STATE MEDICAL ASS'N. 47

MISS. STATE MEDICAL ASS'N. NEWS 48

WOMAN'S AUXILIARY 59

INDEX TO ADVERTISERS

Allison's Wells xiv
American Surgical Co. vii
Baptist Hospital, Jackson, Miss. v
Blue Mountain College .... inside back cover
Bilhuber-Knoll Corp. xxi
Courtesy Cards .... xi, xii, xiii, xiv
Draughon's School of Commerce xv
Duckworth Drug Co. xv
E. R. Squibb & Sons vi
Eli Lilly & Co. x
General Electric X-Ray Corporation iv
H. A. Phillips Artificial Limb Co. xv
Hotel Wm. Len xvi
Houston Hospital, Inc. xvii
Hoye's Sanitarium viii
Jefferson Standard Life Insurance Co. xix
Lynnhurst Sanitarium xix
Magnolia Printing & Supply Co. xvii
Mead Johnson & Co. .... inside front cover
McKesson & Robbins, Inc. xx
Mississippi Power & Light Co. xviii
New Fenwick Sanitarium .... back cover
Parke, Davis & Co. i
Robert E. Lee Hotel viii
The Dick X-Ray Co. ii
The Gwinner-Mercere Co. v
The Three Musketeers Book Shop xvii
The Wallace Sanitarium xx
U. S. Standard Products Co. xviii
Welch's Sanitarium Inc. xxi
William P. Poythress & Co., Inc. iii

RETICULOGEN

(PARENTERAL LIVER EXTRACT WITH VITAMIN B_1, LILLY)

Highly concentrated antipernicious anemia principle from liver for Parenteral Administration

PATIENTS may now be comfortably and conveniently treated with relatively infrequent injections of liver extract. Each 0.5-cc. ampoule of 'Reticulogen' is comparable in hematopoietic effect to the ingestion of 3,000 to 4,500 grams (6 1/2 to 10 pounds) of fresh liver. There are 500 International units vitamin B_1 in the 0.5-cc. ampoule.

In the average uncomplicated case of pernicious anemia a dosage of 0.5 cc. of 'Reticulogen' at intervals of one to two weeks is usually sufficient to maintain an adequate red blood cell response.

Ampoules 'Reticulogen' are supplied in boxes of three 0.5-cc. rubber-stoppered ampoules and in 5-cc. rubber-stoppered ampoules.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

The Treatment of Latent Syphilis

SEALE HARRIS, JR., M.D.
BIRMINGHAM, ALABAMA

It is extremely unfortunate that a disease having such ultimate devastating effects as syphilis does should have so deceptive a preliminary period. The early signs and symptoms of the infection are not particularly alarming to the patient and after treatment, or even without treatment, they are of short duration, subsiding spontaneously, leaving the patient pitifully deceived by the false sense of security of the so-called latent stage of the disease. It is during this period that the Treponema pallida multiply and are disseminated throughout the body. The organisms promptly invade practically all of the tissues of the body, but the signs and symptoms of tissue destruction are slow in development. It is during this period that the patient is apt to feel that the disappearance of his primary and secondary lesions are evidence of his resistance to the disease, or that his physician was unduly concerned over the seriousness of his infection. He feels well and is apt to discontinue his treatment, believing himself cured, thereby more than likely becoming an infectious menace to others and predisposing himself to invalidism, insanity or early death. It is because of this latent stage of the disease that patent medicine concerns and unscrupulous druggists thrive. A person with primary or secondary lesions accepts the claims of advertisements or the advice of the drug store "doctor;" his demonstrable lesions subside, as they would do if he received no treatment at all, and the "3 X's" or "Doctor Z's" dusting powder is acclaimed as the curative agent. A careful inquiry into the history of most patients with late syphilis will reveal that they have consulted a druggist or have taken patent medicine for treatment of syphilis in its early stages.

Another treacherous feature of syphilis is "symptomless infection." A certain number of people infected with syphilis never have symptoms or external signs of the early stages of the disease. This is particularly true in women. A primary lesion of the cervix most frequently passes unnoticed unless there happens to be concomitant symptoms or some other infection which will indicate pelvic examination.

The diagnosis of latent syphilis is entirely dependent upon a careful routine history, examination and serological study of every patient, no matter what condition brings them to the physician. It is not the purpose of this communication to go into the details of the diagnosis of latent syphilis. The Cooperative Clinical Group[1] quotes Moore:[2] "A clinical diagnosis of latent syphilis assumes that the most meticulously searching physical examination, including particular emphasis on study of the cardiovascular and nervous systems and of the special senses, has revealed no lesions definitely attributable to the disease, and that the diagnosis rests either on a positive serologic test, or, if this is negative, on a clear-cut history of infection inadequately treated, or (in the female) on the birth of a syphilitic child."

It is well to emphasize that the investigation of a patient with suspected or proved latent syphilis is not complete without a study of the cerebrospinal fluid. There is a large group of syphilitics who may be classified as having asymptomatic neurosyphilis, i. e. patients having abnormal cerebrospinal fluids, as the result of the infection, without demonstrable signs or symptoms of invasion or involvement of the central nervous system. Certainly the treatment plan and prognosis of these patients will differ from those without involvement of the central nervous system. This constitutes imperative indication for the examination of the cerebrospinal fluid in every case of latent syphilis.

The Cooperative Clinical Group[3] divides patients with latent syphilis into two groups—early latent syphilis and late latent syphilis. This division is made on the basis of the duration of infection. "All those who gave a definite history of infection within the 4 years preceding admission or in whom, a history being absent, collateral evidence indicated that infection had occurred within this time period, were classified as early latency. All those who had syphilis for more than 4 years, or in whom, a history being lacking, the duration of infection was presumably this long or longer, have been classified as late latency." This division is practical and is entirely applicable to the plan of treatment for latent syphilis.

It is the advice of the Clinical Cooperative Group that patients with early latent syphilis be treated under the plan for the treatment of early syphilis.

A recent communication[4] discussed the treatment of early syphilis. In this paper the adoption of a plan of treatment was urged. This plan differed from that advocated by the United States Public Health Service and the Cooperative Clinical Group[5] only in the suggestion that neo-arsphenamine be used in place of old arsphenamine. One reason for this suggested substitution is that the results of treatment using adequate dosage of neo-arsphenamine closely approximate those obtained by the use of arsphenamine. The administration of neo-arsphenamine is more expedient and on the whole it is better tolerated by patients. For these reasons it seems likely that more patients will receive adequate treatment for syphilis when neo-arsphenamine is used.

The plan for treatment of late latent syphilis (patients who have been infected more than four years) must necessarily differ from the plan for early latent syphilis. Inasmuch as these patients have been harbouring the Treponema pallida for a long period of time, it will take longer for a clinical "cure" to be effected and there is more danger of the Herxheimer reaction and of possible therapeutic paradox.

The Herxheimer reaction is a focal exacerbation of the syphilitic process following the first or second dose of an arsenical. (The same reaction may follow injections of the heavy metals but when it does occur its manifestations are so slight that it may be disregarded). This focal exacerbation is associated with oedema and hyperemia of the syphilitic forces. Such a flare up, for example, in the wall of the aorta or in the mucous membrane of the pharynx might easily prove fatal. Lesions in the aorta and other "vital" tissues may be so small and so obscure that the most careful study of the patient will not bring them to light. For this reason it is always best to proceed cautiously in beginning treatment for syphilis in a patient who has been infected long enough for the "vital" tissues to become involved. The Herxheimer reaction is in most instances avoided and in all instances rendered of no consequence in patients with latent syphilis by giving the patient a preliminary period of three or more weekly intramuscular injections of bismuth, during which time potassium iodide is given by mouth. This period of preliminary heavy metal and iodides will also prevent the therapeutic paradox in patients with latent syphilis.

Following the preliminary three or more weeks of bismuth and iodides, the following plan advocated by Moore[6] and adopted by the United States Public Health Service[7] is most satisfactory:

"Weeks 1-7 8 weekly doses neo-arphenamine 0.45-0.6 gm.; weeks 8-17 8-10 weekly doses bismuth; weeks 18-25 8 weekly doses neo-arsphenamine; weeks 26-37 12 weekly doses bismuth; weeks 38-45 8 weekly doses neo-arsphenamine; weeks 46-57 12 weekly doses bismuth; weeks 58-69 rest period; weeks 70-81 12 weekly doses bismuth; weeks 82-93 rest period; weeks 94-105 12 weekly doses bismuth."

During the periods in which bismuth is given the patient should receive 25 drops of saturated solution of potassium iodide by mouth, unless there are such contra-indications as tuberculosis or thyrotoxicosis. The author suggests that bismuth salicylate in oil, in doses of 0.2 gram, be used.

After the completion of this plan of treatment the patient should have a thorough physical examination, a cerebrospinal fluid examination and a year of observation before he is pronounced clinically "cured."

SUMMARY

1. The latent period in syphilis is the most treacherous period of the infection.

2. Early latent syphilis, i. e., infection under 4 years duration should receive the same plan

of treatment as early (primary and secondary) syphilis.

3. The plan of treatment for latent syphilis, i. e., infection of over 4 years duration, advocated by Moore and by the Cooperative Clinical Group is proposed.

4. Attempt should be made to prevent the Herxheimer reaction before beginning the use of arsenicals in the treatment of patients with latent syphilis.

BIBLIOGRAPHY

1 Venereal Diseases Information. Reprint No. 45 from Vol. xiii, Nos. 8-12, 1932. Vol. xiv, No. 1, 1933—page 2.
2. Modern Treatment of Syphilis, by Joseph Earle Moore, Charles C. Thomas, Baltimore, 1933, page 231.
3. Venereal Diseases Information. Reprint No. 45 from Vol. xiii, Nos 8-12, 1932. Vol. xiv, No. 1, 1933, page 3.
4. The Treatment of Early Syphilis, by Seale Harris, Jr., published in **The Mississippi Doctor**, Vol. 14, June 1937.
5. Venereal Disease Information, xv, 4, April 1934.
6. Modern Treatment of Syphilis, by Joseph Earle Moore, Charles C. Thomas, Baltimore, 1933, page 246.
7. Venereal Disease Information. Reprint No. 45 from Vol. xiii, Nos. 8-12, 1932. Vol. xiv, No. 1, 1933, page 55.

Orthopedic Treatment of Acute Anterior Poliomyelitis

WILLIS C. CAMPBELL, M.D.
MEMPHIS, TENNESSEE

The type of treatment instituted in infantile paralysis depends upon the stage in which he disease is first seen. Ordinarily paralysis is present within two to four days after the onset of the acute febrile stage. From the onset of this paralysis orthopedic treatment should be begun. The paralysis may be of any muscle or muscle group and may involve the entire muscular system. The distribution of paralysis in order of frequency of occurrence is: both lower extremities, one lower extremity and all four extremities. At times the cranial nerves may be involved, such as the speech center. The extremities are excruciatingly hyperesthetic; so much so that even bed clothes may cause considerable pain and discomfort. Muscular twitchings and ataxic tremors of the fingers are commonly present. The paralysis, of course, is of a flaccid nature.

After paralysis has existed for eight days, death is unlikely and is usually due to complications. Unfortunately in the early stage of this disease there is no means by which the physician may judge the ultimate outcome as to function and no definite prognosis should be given at this time, as at least six months should elapse before any definite statement can be made as to the amount of muscle power which will ultimately return. After paralysis has occurred, the return of function depends entirely upon the extent of destruction of the anterior horn cells of the spinal cord. Muscles whose cell control in the cord has been completely destroyed can never be restored to action. However, in those muscles whose control cells are only impaired by inflammatory changes not sufficient to cause definite necrosis, there may be restoration to normal function.

The stage of initial paralysis during which hyperesthesia of the limbs gradually diminishes and muscle function begins to return extends from the period in which paralysis was first observed up to eight weeks. Deformity may begin at once and be quite extensive as a result of muscle imbalance followed by contracture of the soft parts. No attempt at massage or manipulation should be attempted during his stage. The limbs are very painful and tender and should be put at complete rest. This is accomplished most efficiently by the application of a cast that sufficiently immobilizes the joints through which the paralyzed muscles act. The spine should be particularly examined for paralysis, and, if it exists, the cast should extend so as to immobilize it properly. By means of the cast, pain and hyperesthesia are relieved; paralyzed muscles are prevented from being overstretched by their active antagonists. It is a generally known fact that a paralyzed muscle which is over-stretched rarely returns to normal function; relaxed muscles recover more rapidly. Symptomatic treatment should be carried out during the ensuing eight weeks as general constitutional symptoms indicate. Drug therapy and serum therapy are of no value whatsoever in regard to the paralysis during this stage or any of the following stages of the disease.

The more common deformities which are induced by the force of gravity and by natural attitude such as sitting with the hips flexed and abducted, the knees flexed and the equinus, must be prevented. The foot should be immobilized at a right angle, the knee in complete extension, the hip should be out straight and in slight abduction. In the upper extremity the deltoid muscle of the shoulder is most frequently paralyzed. This causes loss of active abduction and there may be dislocation by gravity alone if immobilization is not instituted. The elbow is immobilized at a right angle in neutral pronation with the wrist in slight dorsiflexion.

The third stage, or stage of resolution and improvement, is characterized in many instances by an almost spontaneous return of function. Occasionally a patient is seen with complete paralysis of all extremities who will recover sufficiently during eight weeks to predict almost ultimate return to normal function of the muscle with the exception of individual muscles or muscle groups.

When the cast is removed at eight weeks a careful examination should be made of all muscles to determine the degree of return of function, and at this time physiotherapy consisting of massage, electric stimulation, muscle training and underwater exercises should be instituted, but the extremity should be continuously immobilized between periods of exercise and particularly at night; otherwise, deformity will invariably occur and return of function be impaired by over-use and fatigue of the weakened muscles, which may in time return to normal, if painstaking treatment is carefully carried out. Where there is paralysis in the lower extremities, walking should not be allowed until the elapse of six months

Physiotherapy should always be administered by an expert, as much harm may be done by inexperienced individuals. If it is impossible to secure a trained physiotherapist, the mother or attendant should acquire a knowledge of simple methods of muscle training, exercises and massage. Massage is never instituted until muscle tenderness has entirely disappeared, and treatment should be given daily. Physiotherapy is of greatest value and benefit during the first six months. Objections are frequently raised that immobilization or apparatus increases atrophy of the limb, but any wasting which may occur is rapidly overcome by proper therapeutic measures.

A word as to underwater exercises: The buoyancy of the water enables weakened muscles to act where otherwise, against gravity, it would be difficult. Other than this, no waters, as such, possess any intrinsic value whatsoever as a therapeutic agent, and it is doubtful if exercises carried out in this manner are of any great advantage over those which a trained physiotherapist can carry out, particularly in view of the expense attached to maintaining the equipment and organization necessary to underwater exercises. However, I do not condemn this procedure, and where available, it is of considerable value. Even then the underwater gymnasium should not wholly replace ordinary massage and muscular exercises.

The amount of increase in activity of the patient depends entirely upon the rapidity of the return of strength of the various paralyzed muscle groups and each patient is an individual equation. Exercises should be carefully increased but never to the point of fatigue. At the end of six months the patient may become ambulatory, always with braces applied to prevent stretching of muscles, to aid in maintaining stability and to be an excellent adjunct toward function of the part.

After the elapse of 12 to 18 months, very little increase in muscle power can be anticipated and the patient is in the stage known as residual paralysis. At this time a complete inventory should be made to determine the status of the joints as to deformity, which of course should not exist if proper treatment has been carried out up-to-date, and the amount of muscle power which exists. The only treatment of value in this stage is of a surgical nature. Space does not permit a complete description of the various surgical procedures which may be carried out, but briefly they accomplish the following: (1) Correction of deformity; (2) restoration of muscle power by tendon transplantation; (3) stabilization of loose and relaxed joints; and (4) reconstruction by bone plasties.

Operations for the correction of deformity consist in forcible correction, osteotomy for correction of osseous deformity, and tenotomies, or fasciotomies for lengthening contracted soft structures. For example: large tendons such as the tendo Achillis may be lengthened by very simple plastic procedures. More difficult and extensive surgical procedures are required for flexion contracture of the hip. I devised a procedure some years ago for this condition which is known as transference of the crest of the ilium.

Operations for the restoration of muscle power consist mainly of tendon transplantation as nerve anastomoses have not proven satisfactory. Tendon transplantation is a valuable procedure but must be employed only in selected cases if results are to be obtained. By this method, the tendon of an active muscle is transferred to the point of insertion of a paralyzed muscle. However, the transplanted muscle must always be of sufficient point to perform the function of the muscle whose action it assumes and be carefully placed and arranged in the new position so that it will be capable of assuming the function of the replaced muscle.

Operations for stabilization purposes consist of surgical arthrodesis or ankylosis of the joints by operative methods. Operations have been devised whereby the part is made stronger, correction of deformity secured, and particularly in the lower extremities, sufficiently stable for ambulation. Any procedures of this nature must be planned along correct mechanical lines. For example: The foot must be considered in its relation to other portions of the limb so as to form a good foundation for walking. Operations which require the removal of bone for the purpose of fusion, stabilization or reconstruction are contra-indicated in young children and should not be attempted until the age of nine years, or at least until there has been sufficient osseous development so that no distortion of bony structures will result from interference with normal epiphyseal growth.

Reconstructions by bone plasties are too numerous to discuss in detail. Briefly they consist of: (1) bone blocks, for example: The bone block, described many years ago to prevent drop foot or genu recurvatum, which in many cases will increase function of the part sufficiently to enable the patient eventually to discard braces. (2) Bone lengthening or bone shortening procedures. Bone lengthening procedures are extensive, painful and in some instances even dangerous procedures, and are indicated in only a few instances for the above mentioned reasons. Bone shortening procedures are relatively much more simple and more effective with a higher percentage of increase in function. Bone shortening may be accomplished either by actual resection by a Z-plastic procedure which is used most frequently in adults who have obtained their full growth. Where there is a deficiency in length of the weight-bearing extremities in children, epiphyseal block of the upper tibial epiphysis and lower femoral epiphysis as described by Phemister, if done at an appropriate age, will sufficiently retard growth of the normal extremity so that length of the two extremities will approximate each other by the time full osseous development has been attained. This is a relatively simple procedure to carry out. Its only disadvantage lies in the fact that the unaffected extremity is operated upon which would be disastrous in the event of a severe infection. With the present methods of careful aseptic non-contact technic carried out by the majority of well-trained orthopedic surgeons, this disadvantage is nil, and function of the extremity is entirely unimpaired. (3) The reconstruction procedures consist of reduction of dislocations which occur in the hip and the shoulder. In the shoulder the logical procedure is arthrodesis but in the hip a successful and excellent functional result may be obtained by reduction of the dislocation and maintenance of same by various surgical procedures instituted to form a shelf or exaggerated rim of the acetabulum to maintain the head of the femur in the acetabulum.

In one patient, a combination of two or more of these various procedures may be carried out at one time. For example: In the foot, arthrodesis of the midtarsal joints, tendon transplants to substitute for paralyzed dorsiflexors and bone block to prevent over-stretching of the transplanted muscle; at a later date epiphyseal bone block of the other extremity to accommodate for shortening.

Thus we see that rehabilitation of a patient with infantile paralysis may extend over a period of years from the time of the paralysis as an infant until full growth is obtained. It requires considerable patience and constant observation during this period on the part of the surgeon, if restoration of the patient to normal life is to be obtained. Constant and continuous co-operation must be maintained if the ultimate degree of rehabilitation is to be secured.

Acute Anterior Poliomyelitis: Etiology, Pathology and Diagnosis

J. F. HAMILTON, M.D.
MEMPHIS, TENNESSEE

Considerable progress has been made in the studies on acute anterior poliomyelitis during the past 25 years and yet, today, when an endemic or an epidemic makes its appearance there invariably results considerable agitation and the question arises: "What should I do to protect my child?" This is because of our meager knowledge of certain immunological and epidemiological aspects of the disease. This mental state is also intensified by the fact of the confusion, so common, incident to making an early diagnosis.

Definition—An acute infectious disease with involvement of the central nervous system, especially the anterior horn cells which may result in paralysis of the lower neurone type.

Etiology—The disease is caused by a filterable virus. Many theories have been proposed and but one confirmed as to the etiology. Rosenow was for a long time a strong proponent of a pleomorphic streptococcus-like microorganism as the etiologic agent and wrote many quite convincing papers on the subject. But in 1926 he wrote that "only one question on poliomyelitis may be regarded as settled: The causative agent is a filter-passing virus."[1] However, he believes there is a relation between the virus and the peculiar pleomorphic green-producing streptococcus, which he announced in 1916. No one else, as far as I know, has ever been able to consistently, at least, if at all, duplicate or confirm his bacteriological pronouncements. However, there may be some as yet unknown connection between the pleomorphic streptococcus and the virus now claimed to be the cause of the disease.

The virus has been transmitted many times from monkey to monkey, not through social contact but by experimental inoculation, only. Furthermore, it has been recovered from human beings in apparently good health. Thus the healthy carrier is an ever present menace to the spread of the disease.

Pathogenesis—The virus of acute anterior poliomyelitis may enter the body at more than one point. However, it is a fact that the disease may be produced almost ad lib in monkeys by placing the virus on the unprotected nasal mucosa. Schultz and Gebhardt[2] suggest the possibility that the virus may pass into the body by way of the hairs, olfactory cells, perineural spaces or a combination of these. Cutting the olfactory nerves inside the skull before intranasal inoculation of the poliomyelitis virus will prevent successful animal inoculation. This, of course, convinces one of the intranasal gateway of the virus into the central nervous system in the experimental animal.

The details of the modus operandi of the virus from its entrance into the nasal mucous membrane to its pathologic conclusions remain for the most part in obscurity. For example, why concrete focal groups of anterior horn cells are destroyed and contiguous groups are not has not been answered.

Pathology—1. Grossly, one may see injection and edema of the meninges and slight increase in amount of spinal fluid. A section of the brain and spinal cord reveals an abnormal amount of moisture and edema. The gray matter stands out prominently on account of its pink and congested appearance. Minute focal hemorrhages may be seen in the gray matter.

2. Microscopic — briefly divided into three stages:

(a) Neuronophagia (i.e. degeneration of nerve cells and removal of same by phagocytes.)

(b) Perivascular infiltration.

(c) Interstitial infiltration.

(a) Sections of diseased cord reveal all stages of degeneration of the anterior horn cells with phagocytic scavanger action followed by a reparative process on the part of the glial structure of the cord.

(b) Lymphocytes dominate the picture in perivascular infiltration. There may be present a few polymorphoneutrophiles and small capillary hemorrhages. This reaction may extend into the adjoining white matter and meninges.

c) Healing sets in shortly after the death of the tissue resulting in a marked gliosis.

In addition other systemic changes take place, such as muscle atrophy with increase of connective tissue and fat, degenerative changes in the liver, kidneys, spleen and lymphoid tissue which becomes hyperplastic.

Symptomatology — Usually the onset is acute with fever, tachycardia, malaise, headache, prostration, pharyngitis or gastro-intestinal disturbances, such as anorexia, vomiting or diarrhea. There may be convulsions in the very young. Then again paralysis has been reported as having been the first symptom or sign of the disease without a single premonitory symptom or sign. The length of the stage of systemic invasion is variable, being from one to three or four days which in turn is followed by a stage of meningeal irritation or central nervous system invasion, proper, accompanied by fever, headache, apprehension, pain, muscle tenderness, stiff neck, stiff back, pain when spine is flexed (spine sign), reflex changes (deep tendon reflexes may be hyperactive early, to be lost later), hyperesthesia and tremor. This stage may last from one to four days to be followed by complete recovery, partial or complete paralysis or death. The severity of the systemic symptoms do not convey the degree or severity of the paralysis. Some patients with profound systemic reactions are known to have escaped paralysis while the reverse is equally true.

Diagnosis—The sporadic case presents almost unsurmountable difficulties in diagnosis before evidence of central nervous system invasion makes its appearance. Since the disease is confined with few exceptions, to the first and second decades of life, there are, therefore, so many conditions that arise in children to lead one astray unless the physician keeps himself "polio conscious" at all times. The gravity of this hits us "like a ton of brick" too, when we must remember that if "specific treatment," if there be such a thing, is to avail anything, it must be given in the pre-paralytic stage. In this connection, there exists at the present time considerable doubt as to the efficacy of immune serum regardless of what stage or how early or by what route it may be administered. There is not the marked enthusiasm present today for this method of treatment as existed in the near past. On the other hand, if there is present an epidemic or an endemic of the disease diagnosis is made much more easily for the simple reason that the physician is "polio conscious" minded.

Factors to bear in mind in making a diagnosis:

1. Keep a constant "polio conscious" mind. This is of extreme importance in order that one may less often blunder in diagnosing the sporadic case which may occur in any season of the year. However, one must remember that the disease is more prevalent during the months July to October, inclusive, than at any other period of the year. Needless to state, in order to maintain such a keen diagnostic acumen, one must review the essential features of the disease often. This can not be overemphasized with any of us.

2. Symptoms and signs as related above.

3. Spinal fluid studies and these frequently repeated if necessary. I would much prefer my child have his spinal fluid drawn and find the doctor's suspicions in error than to wait until signs of paralysis occur before a diagnosis is made. In the early stage of the disease the spinal fluid may be negative. It must be remembered that a polynucleosis may be the first positive fluid finding along with a positive globulin reaction. The polymorphonuclear leucocytes soon became replaced by from 90 to 100 per cent lymphocytes. The total white count varies from 30 to 400 with 50 to 200 being the more common. The pleocytosis recedes to normal after the first week, as a rule. Pressure is increased. Sugar and chloride content are unchanged. The spinal fluid may appear clear unless viewed through transmitted light when it may have a groundglass appearance.

Differential Diagnosis:

I. Acute Infections of the Central Nervous System.

A. Meningococcic meningitis and other puru-

lent forms of meningitis.
   B. Tuberculous meningitis.
   C. Acute syphilitic meningitis.
   D. Epidemic encephalitis.
II. Meningism: (flu, pneumonia, diarrhea, etc.)
III. Serous Meningitis: (otitis media, mastoiditis, brain abscess). It is hardly necessary to do more than mention the above diseases with which infantile paralysis may be confused in the early part of its course.

Prophylaxis—This may be discussed under the following headings:

1. Natural immunity.
2. Acquired immunity.
   (a) Exposure to the disease or to carriers.
   (b) Vaccination.
   (1) Attenuated vaccine. (Na. rinciolate)[3] Killed vaccine.
3. Chemotherapy.
   (a) Picric acid 1 per cent, alum 1 per cent.[4]
   (b) Zinc sulphate 1 per cent, pontocaine 1 per cent, 0.5 per cent salt in solution.[2,5]

The literature reviewed has not recorded a single instance of the disease in a person under six months of age. It is, therefore, quite possible that a person may remain immune throughout his life. Of course, one may argue that the immunity of the first six months might have died out had it not have been for the repeated later exposures. So far as I know no definite "yes" or "no" can be given to this hypothesis. However, if the child's future immunity is due to receiving subclinical doses of virus then he can not be said to have possessed a permanent, natural immunity.

Acquired immunity, of some degree, at least, is an established fact. This has been proven in many instances by the neutralizing effect of the sera of well persons on the virus of poliomyelitis.

This type of immunity may be acquired in one or both of two ways. It is believed one becomes immunized and his immunity perhaps sustained by receiving repeated small subclinical doses of the virus from time to time and thus is able to resist larger doses which would otherwise produce the clinical disease. Many of the indispositions, with fever and G. I. tract upsets, of childhood may be mild systemic invasions by the polio virus, for all any of us know. Whether one contracts poliomyelitis probably depends to a large degree on the following factors of major importance:

1. Virulence of the virus.
2. Size of the dose.
3. Susceptibility of the subject.
4. Length of exposure period.

It is probably true that rarely, if ever, do all four operate in any one individual. On this ground may be explained the reason why it is so infrequent for the disease to appear in more than one person a family.

It has been suggested that there may exist an hereditary susceptibility to the disease predictated upon the appearance of it in so many of the same family tree.

Vaccination has been tried and reported successful, both in animals and in man during the past few years. Kolmer[3] is one of the chief exponents of this method in which he uses an attenuated vaccine. He has used a 4 per cent cord emulsion virus mixed with a 1 per cent sodium ricinolate solution. He recommends in children from:

1 to 3 years of age 0.25 -0.5 -0.5 c.c. every 7th day subcutaneously.

4 to 10 years of age 0.5 - 0.5 - 1.0 c.c. every 7th day subcutaneously.

11 to 15 years of age 0.5 - 1.0 -1.0 c.c. every 7th day subcutaneously.

Adults 0.5 - 1.0 - 2.0 c.c. every 7th day subcutaneously.

Some persons have been reported to have developed the disease following this method of vaccination and therefore enthusiasm for it has become somewhat abated.

Other workers have used a killed vaccine, but so far it has not proved to be of any practical benefit.

Armstrong and Harrison[4] are exponents of the picric acid—alum solution with which they claimed to have prevented experimental inoculation of animals following the spraying of the nasal mucosa. There are no trustworthy clinical statistics on which to judge its merit, so far as I know. The inefficient use and manner of application of the solution in the Alabama epidemic of 1936 are blamed for its poor showing.

Zinc sulphate proposed by Schultz[2] et. al. and to which Peet[5] et. al. have added 1 per cent pontocaine and 0.5 per cent salt. Peet recommends a certain type of atomizer with long nozzle so that the solution may be sprayed up in the roof of the nose or olfactory area.

Several hundred monkeys have been found virus resistant following the use of the spray. They recommend that a doctor spray the child once daily for two or three days and then once every two weeks, especially in the presence of a threatened epidemic. There is loss of sense of smell for about two weeks following the use of this solution. There are certain other obvious objectional features connected with it. It remains for further experimental and clinical trial to prove its real merit.

BIBLIOGRAPHY

1. Poliomyelitis—Int. Com. (Williams & Wilkins Co., Baltimore, 1932.
2. Zinc Sulfate Prophylaxis in Poliomyelitis., E. W. Schultz, L. P. Gebhardt, J. A. M. A., Vol. 108, p. 2182, June 26, 1937.
3. A Successful Method for Vaccination Against Acute Anterior Poliomyelitis, John P. Kolmer, Amer. Jour. of the Med. Sciences, V. 188, p. 510, Oct., 1934.
4. Prevention of Intranasally-Inoculated Polio. of Monkeys by Instillation of Alum into the Nostrils. —Armstrong & Harrison, P. Health Report, V. 50, p. 725, May 31, 1935.
5 The Chemical Prophylaxis for Poliomyelitis: The Technic of Applying Zinc Sulfate Intranasally., Max M. Peet, Dean H. Echols, H. J. Richter, J. A. M. A., Vol. 108, p. 2184, June 26, 1937.

Emergency Treatment and Transportation of Fractures

HUGH SMITH, M.D.
MEMPHIS, TENNESSEE

On first thought this subject may seem rather commonplace; none the less there has been a marked increase in interest in emergency treatment and transportation of fractures in the past few years so that it is assuming its proper and important place in the treatmen of fractures. During the World War it was vividly demonstrated that mortality could be reduced and the time of disability decreased by the simple application of routine or improvised splints. In the first battle of the Somme, gun shot fractures of the extremities were not immobilized; soldiers were loaded into any means of conveyance without proper splinting. The result was the terrific mortality of 80 per cent. In the second battle of the Somme, particularly in the American and British armies, the order of the day was "splint 'em where they lie," and no patient was moved without proper immobilization of the fracture. The mortality was reduced to 20 per cent.

With the increase in industry and various technological changes through the country during the past decade, there has been an increase in the number of fractures far out of proportion to the increase in population. There has also been an increase in their severity. For example: Fractures are being seen today which rarely occurred 20 years ago. Side swipe fracture, which is not a clinical entity, but a mode of etiology, is frequently seen in which there is severe comminution of the bones forming the elbow joint as a result of violent impact when a passing automobile strikes an elbow which is outside the window of a car. Other fractures, such as "bumper fracture" and fractures of the patella are on an increase as a result of automobile accidents.

One of the aims of the fracture committee of the American College of Surgeons is to improve transportation methods and disseminate knowledge throughout the country on this subject to both practitioners and lay organizations. As a result of impetus from the American College of Surgeons, the American Red Cross ultimately expects to have 15,000 first-aid stations through the country. Many hundreds of these are already in operation.

Russell adequately condemned the fallacious classification of fractures as present in textbooks for years; namely: simple and compound fractures. He stated that no fracture is simple. This is borne out by statistics in that mal-union of Colles fractures is most common; usually a Colles fracture is regarded as a relatively "simple" fracture. Too often bone is regarded as an inert substance serving only its function as the skeletal framework, whereas it contains nerves, vessels, lymphatics, forms the red blood cells, some of the white blood cells, and is the storehouse of calcium.

A fracture is not merely a break in the continuity of the bone, but is an injured extremity, as it intimately involves the adjacent muscles, nerves and vessels. Following a fracture, there is profuse hemorrhage; the fragments overlap as the result of a spastic contracture of the muscles in nature's effort to splint the part. The periosteum is stripped from the bones adjacent to the fracture site, thus depriving this area of the blood supply which passes through the periosteum. There is an extravisation of blood into the adjacent soft tissues, and some laceration and tearing of the muscles. Haldeman and Kolodny have particularly stressed the important role of the periosteum in the healing of fractures. This is also proved clinically by the slow rate of union in compound fractures and open reductions where the periosteum is stripped for a considerable area from the circumference of the bone adjacent to the fracture site. Thus we see that preservation of the periosteum as intact as possible is one of the necessary prerequisites to rapid union. The blood clot between the fragments forms an area of stasis conducive to bone formation and there is an adequate local supply of calcium in the fragments of the bone.

With this physiologic picture in mind, it is readily understandable how the simple application of a proper splint can accomplish the following: Prevent excessive shortening or overlapping of the fragments by traction, thus decreasing the amount of muscle spasm and pain, and maintain the part at rest. This in turn preserves the periosteum which will eventually play an important part in obtaining solid union. Swelling and edema of the part is decreased which enhances manipulative procedures that may be carried out immediately upon reaching the hospital without undue trauma. The chances of the bones protruding through the skin resulting in an open or compound fracture are lessened. Shock is reduced to a minimum.

Routine splints, when available, are much more efficient that those that can be improvised. These splints are a half ring Thomas splint which properly immobilizes any fracture of the lower extremity from the lower third of the leg to the hip, and the Sayre splint, which is a modification of the Thomas splint for the upper extremity. It has hinges at the ring so that it will conform to the contour of the shoulder and efficiently immobilizes the fractures from the middle third of the forearms to the shoulder.

A careful general examination should be made immediately following any severe trauma. The diagnosis of the fracture in question is usually obvious as a result of discernible swelling, deformity, dysfunction and abnormal mobility. The practitioner should be cognizant of the patient's general condition and if there is excessive shock as evidenced by pallor, weak thready pulse, and a systolic pressure below 80, etc., he should make a careful examination for injury to various viscera. Frequently in a hurried examination fractures of the pelvis and spine are overlooked. Particularly in fractures of the pelvis should a careful examination be made as there may be an associated rupture of the bladder or urethra. Proper measures should be instituted to combat shock; the routine administration of opiates is a good prophylaxis. No attempt should be made to reduce an open or compound fracture as the proper treatment can not be carried out without an anesthetic and should be relegated to the hospital. Mixed tetanus and gas antitoxin should be given immediately.

Great care should be taken when applying the splints to see that there are no tight bands which will constrict circulation, as swelling occurs; irreparable damage can be caused by only a few hours of impaired circulation. Where the patient is not transported immediately to a hospital, he should be under careful observation at frequent intervals for any signs and symptoms of constriction of circulation. This is particularly true in fractures about the elbow joint where the anatomy is such that constriction of the veins occurs rapidly and may be followed by a Volkmann's ischemic paralysis. In fractures about the elbow joint, the elbow should be immobilized at a right angle with the elbow splint loosely applied so as to prevent this unpardonable catastrophe.

Thus by the routine application of these splints, many complicaions can be prevented, mortality reduced, time of disability decreased with an ultimate improvement in end results.

The Purchase and Use of X-Ray Equipment by the General Practitioner

J. CASH KING, M.D.
MEMPHIS, TENN.

Again, it is becoming popular for the general practitioner to install his own x-ray equipment. The sale of small x-ray units to doctors, like the sale of books and infrequently used special instruments, is remarkably increased as soon as the doctors begin to collect a little more money than is required to pay for their overhead expenses and a meager livelihood. Because of the fact that the successful physician in general practice is very busy and has little time to consider carefully the advantages and disadvantages of special equipment, salesmen are often able to secure his signature on an order blank before he decides fully how he is going to obtain the desired service from the machine. The principal idea in the doctor's mind is that he wishes to improve the efficiency of his service to his patients, and this is the point the salesman emphasizes. No doubt there are definite instances wherein it is an advantage to the general practitioner to arrange to make his own roentgenographic studies, but as a rule he has little or no use for x-ray equipment and finds that it serves only to fill much needed office space and remind him of the expenditure of a considerable sum of money which would have been far more profitably invested otherwise.

The physician who contemplates the purchase of x-ray equipment should first decide in what field he shall work, then learn how to make all the examinations which may be necessary in his practice in that field. Having done this, he can choose wisely the equipment he needs, and should buy everything essential to his purpose, but no more. Before actual practice is begun, he should work out a definite procedure to be followed in every type of examination he expects to make, and adhere to this procedure rigidly. A well-planned routine will permit him to work with the greatest thoroughness and efficiency.

As a matter of fact, a great deal might be written on routine in roentgenography. There are many salient points to be borne in mind. In x-ray examinations of the extremities alone, for example, one should always remember (1) to place the patient in a comfortable position, (2) to immobilize the parts with sand bags, (3) not to attempt to radiograph through clothing or dressings which can be removed without harm to the patient, (4) to include the joint nearest the part under study, (5) to make true lateral and anteroposterior views, (6) to mark the film in some manner to identify it with the patient and the side under examination, and (7) when doubtful findings appear in the film, to make similar views of the other extremity for comparison, particularly when the patient is a child or juvenile and the epiphyseal lines may not have become obliterated.

Before going further, a few other cautions to be considered by the doctor who undertakes roentgenography should be mentioned. First, he should not feel that the possession of roentgenographic facilities eliminates the necessity of making thorough physical and laboratory studies of his patients. A carefully taken history and physical examination are essential to both correct filming and intelligent interpretation. Roentgenologic investigation is a clinical procedure dealing with the living body. Its purposes differ from that of laboratory procedures on tissue or tissue products that are no longer parts of the body. Therefore, a knowledge of the existing or non-existing morbid anatomy is not sufficient; the doctor should attempt to solve disturbances in physiology, and for this he must have a complete clinical record. After all, the solution of these disturbances is the problem that concerns patients most.

Second, patients should not be permitted to take films from the doctor's office, to be destroyed or lost in careless handling, or, worse, to be misinterpreted and led to misunderstandings and wrong treatment. The radiograph is as much to the doctor's personal property as is the paper on which he makes notations of the history and physical findings, and should therefore not leave his files except under circumstances that necessitate sending all other records.

In this paper the author will deal with the elementary requirements of the practitioner of roentgenology. In subsequent articles he will describe some frequent errors in diagnosis of bone abnormalities, as well as points in the diagnosis of chest conditions.

Fluoroscopy

Before going into the extensive subject of roentgenography, the more limited phase of fluoroscopy will be discussed briefly, with particular reference to the value of the procedure and the dangers involved in its use.

The fluorescent screen was devised for the purpose of examining different parts of the body to determine the presnece of gross changes in morphology. It is chiefly valuable for study of the lungs, the heart, and the gastrointestinal tract, and as a control during the reduction of fractures, but may also be used to investigate grass fractures or dislocations and the presence of radiopaque foreign bodies.

More injuries have occurred to inadequately trained physicians and to their patients from the use of the fluorescent screen than have resulted from improperly administered x-ray therapy. I say without exception, therefore, that no physician should attempt to use the fluoroscope unless he has had special instruction in proper methods by some roentengenologist.

The intensity of the image obtained on the fluorescent screen may be increased or diminished at will, but on account of the danger to the patient's skin and to the doctor's health, it is advisable that the amount of electrical energy used be kept at a minimum. A balance must be made between these two factors—danger on the one hand and a poor image on the other—and every facility available must be employed to diminish the one and increase the other. The visibility of the screen image has been increased tremendously by the use of the new screens placed on the market during the past few years, but more important than this is that the examiner allow sufficient time for his eyes to become fully accomodated to the darkness. If he has previously been in the bright sunlight, he may find it necessary to spend twenty minutes in a completely darkened room. Neglect in observing this precaution results in unnecessary exposure of both patients and doctors, and many times in failure to secure the desired information.

Before beginning fluoroscopic work, the setting of the machine should always be carefully checked. Further, some timing device must be arranged to prevent one from obtaining an over exposure. Time always passes more quickly, while working under the fluoroscope, than the observer suspects, and even the most experienced may err in this matter.

Study of Fractures.—The fluoroscope should not be used routinely in searching for fractures. It will not show those that cannot be easily diagnosed from physical examination. When employed to check the position of bones in reducing fractures, manipulations should be made while the x-rays are off. During this time the room may be lighted by a small red light. To check the position obtained, the screen is then placed over the part and the x-ray turned on. If the hands of the operator are placed in the field, they should always be protected by the best grade of lead rubber gloves.

Removal of Foreign Bodies.—Many capable surgeons, some of them my personal friends, have suffered irreparable injury to their well trained hands in the removal of foreign bodies under the fluoroscope. There is no doubt that the fluoroscope must be used in extracting most foreign bodies, but the risk of losing a hand or suffering a disabling injury is certainly not worth while. The doctor inexperienced in this work could far better afford not only to miss a fee, but to pay the expense of the reference of the patient to a roentgenologist especially versed in fluoroscopy.

To remove foreign bodies successfully and without injury to himself or his patients, the doctor should observe the following routine:

1. Make a small film to determine the presence and location of the foreign body.
2. With a small field under the fluoroscope

and a long handled marker, draw carefully the most desirable place for incisional approach.

3. Prepare the part for surgical procedure and make the incision at the designated place. Insert a long handled forcep, keeping its mouth closed, to the approximate level.

4. Place the part under the small field of the fluoroscope, and by blunt dissection, work the end of the closed forcep down until the foreign body is touched. Check the position frequently by observing from two views at right angles to each other.

5. Catch that end of the object which will permit the easiest extraction and pull in a manner that will damage surrounding tissues to the least extent.

The roentgen-ray is of little value in revealing non-opaque foreign bodies in soft tissues. However, metallic particles, glass, gravel, and rubber tissue can easily be deminstrated by the film or the fluoroscope. Their removal, therefore, is more quickly and completely accomplished with this aid.

Radiography

Radiographs properly made portray an image in semi-microscopic detail of tissues invisible to the unaided eye. Some normal structures are seen in all radiographs, and, indeed, these constitute the sole findings in approximately fifty per cent of those made in the general practitioner's office. The first requirement of one who would attempt roentgenology, therefore, is a thorough familiarity with normal anatomy and an ability to recognize indisputably healthy tissue and normal structures, at least those with which his practice will deal, so that he may distinguish them from those which have undergone pathologic change or are otherwise abnormal. This matter is far less simple than it would appear on casual thought. There are many errors which might easily be committed, and the physician who purchases an x-ray plant with the estimable purpose of benefiting his patients may, unless he acquires special knowledge in this field, be responsible for results entirely at variance with his primary object. A few of the more common pitfalls to be expected might well be pointed out.

Since a large proportion, perhaps the majority of roentgenographic studies made by the general practitioner are those of the skeletal system, this portion of the anatomy is selected for illustration.

It is probable that more errors occur in interpretation of conditions involving the wrists and feet than elsewhere in the body. It is surprising how frequently surgeons and general practitioners well trained otherwise fail to recognize normal bones and mistake them for fractures. Sesamoid bones are often thus erroneously interpreted. Two or more of these are always encountered at the heads of the metatarsals of the great toe and metacarpals of the thumb, and they may also be found normally at the heads of other metatarsals and metacarpals, in the popliteal spaces of the knees, and adjacent to articulations elsewhere in the body.

Bones from separate centers of ossification but in close approximation have been diagnosed as fractures even more often than sesamoids. In this group may be included cervical ribs, and small lumbar ribs articulating with the transverse process of the first lumbar vertebra; the os trigonum, which is a somewhat triangular fragment of bone located just posterior to the ankle joint where the talus and calcaneus articulate; and free ulnar styloid processes associated with Colles' fracture. Separate fragments may also be seen normally about the humeral condyles, particularly the medial condyle; below the malleoli of the ankle; just lateral to and occasionally below the cuboid of the foot (the os peroneum); at the base of the tubercle of the fifth metatarsal; at the extremity of the acromium process of the scapula and, less frequently, just proximal margin of the acetabulum. The last named, which have been designated the os acetabula, are usually small but multiple. These structures are all made up of well formed bony tissue and do not stimulate in appearance the calcium deposits occasionally seen in the bursae about the shoulder joints, nor the evidence of repair of bone injury by excessive or carelessly arranged callous tissue.

All the above bone formations have been misrepresented as having been caused by injury, and in many instances have been removed by energetic surgeons, without benefit to the patients.

It is not the author's intention to intimate that failure to recognize these structures reflects upon one's academic training in anatomy. Extensive use of roentgen-rays have convinced the profession at large that our text books on anatomy, based as they are upon a comparatively small number of examinations, are inadequate guides as to the normal development of even the skeletal structures. Only those whose eyes have become thoroughly schooled in an appreciation of bone contour, texture, and density, can be trusted to say whether such unattached bones are formed from separate centers of ossification or represent fractured segments of adjacent bone tissue. Watkins has brought out this fact forcefully by an appropriate comparison in his statement that, "It is often just as difficult for the roentgenologist to explain why he is certain of his opinion as it is for the expert in precious stones to demonstrate to the untrained eye why he knows a diamond is real and not an excellent counterfeit."

A plea is therefore made to the members of the profession who have not had or cannot obtain special training in the use of roentgenographic equipment to consider well and long the financial and ethical obligations connected with the purchase and use of the machines in general practice. Those who have or do acquire equipment are urged to realize the necessity of persistent study, that they may familiarize themselves with the better methods of examination and interpretation as they are already known and continue to be discovered. They might, moreover, avoid many needless errors by acquainting themselves with a trained roentgenologist and consulting him as freely and as often as they consult surgeons for advice regarding puzzling surgical problems.

Prenatal Care*

J. S. EDMONDSON, M.D.
VARDAMAN, MISS.

It is estimated that 25,000 women die annually in America from some complication of pregnancy. 12 per cent of the babies are born dead or die shortly after birth. The maternal death rate in America is higher than that of England. Proper prenatal care will save thousands of American mothers and thousands of babies annually. Sepsis, toxemia and hemorrhage account for over 80 per cent of the maternal deaths. By proper prenatal care sepsis, toxemias and hemorrhage are preventable to a great extent.

Women should seek the advise of their physicians early in pregnancy. I find that more than half of my patients have been educated to the necessity of engaging a physician early in pregnancy. The physician should first of all gain the woman's confidence.

On the first visit or shortly afterwards a complete medical history should be taken and a complete physical examination given. If the patient is found to be of low fiber she should be built up; if she is strong, she should be kept strong; if she is physically unable to go through pregnancy and labor a therapeutic abortion should be performed. Of course, a medical consultation should precede a therapeutic abortion.

The pelvic measurements should be taken on the first visit or shortly afterwards and recorded, to determine the size of the birth canal.

A Wassermann test should be taken on all patients. If found positive ten or more arsephenamine shots will assure the patient of a normal baby. The U. S. Public Health Service is making an attack on syphilis in the press. through several magazines and on the radio. It is the duty of the medical profession to co-operate with this important movement and thereby prevent the birth of congenital syphilitis. If the patient is found to have gonorrhea active treatment should be given as soon as diagnosed.

On the first visit foci of infection should be found and illiminated as quickly as possible. Salcylates should be given before, during and after eliminating a focus.

Each time the patient visits the office, her blood pressure should be taken, her weight recorded, her urine examined for s. gr., reaction, albumen, and microscopically when indicated. The abdomen is examined to determine the heighth of the fundus, position of the fetus, presence of movements, and for fetal heart tones. If an abnormal position is found in the last two months of pregnancy, an external version may be performed.

All labors should be treated as potential cesarean sections, and handled carefully in the last two months to prevent infections. No vaginal examination should be performed in the last month of pregnancy unless necessary and then only under sterile precautions.

By properly conducted prenatal care, the physician can:

1. Build up the mother in poor health so that she can have a healthy child. One can not expect a healthy child from an unhealthy mother.

2. Treatment can be given to the syphilitics or those harboring the gonococcus.

3. A therapeutic abortion can be performed on those unable to go through pregnancy because of the tuberculosis or severe heart disease.

4. Eclampsia may be prevented by detecting the early signs of a pre-eclampsia and giving early treatment: The signs of pre-eclampsia are rapid increase in weight, albumen urea, sudden rise in blood pressure, edema, spots before the eyes, and vise-like epigastric pain. Only one or two of these symptoms may be present.

5. An external version can often be performed on an abnormal position.

6. The presence of bleeding can be detected.

---

*Read before the Northeast Mississippi Medical Society at Houton, June 15, 1937.

the cause determined and given early treatment.

7. The mother can be warned about the dangers of infection and instructed how she can aid her physician in asepsis and antisepsis.

8. When practicing a carefully outlined prenatal care, a physician will unconsciously practice better management during labor.

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor and Mgr.
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Postgraduate Medical Assembly

Mid-South Post Graduate Medical Assembly
Editors:
E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dowell Gann, Jr., M.D.

Mississippi State Medical Association
W. L. Little .... President
Joe E. Green .... President-Elect

Editors:
Leon S. Lippincott, M.D. D. W. Jones, M.D
G. S. Bryan, M.D.

Councilors
J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J. Gould Gardner, M.D.
Thomas J. Brown, M.D. W. H. Frizell, M.D.
D. J. Williams, M. D.

Published monthly at Booneville, Mississippi.

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act

The third annual session of the North East Miss. 13 County Medical Society meets in Aberdeen on the third Tuesday, Sept. 21. The scientific program is good. Aberdeen will give us splendid entertainment. This city is indeed rich in the culture and refinement of the Old South. Its people have vision and are broadly educated. The city has a splendid hospital, and the profession is going forward. In turning to this splendid city we think of Dr. J. M. Acker Jr., a past president of the Miss. State Medical Association, the efficient secretary of our society for a number of years and a most active member in organized medicine.

We are very thankful to the doctors for their courtesy cards. This cooperation enables us to put more into the journal and to give our readers better service. It is a nice convenience for the men who refer cases often times.

You will read with much interest and profit the second article by Dr. Seale Harris Jr., on the treatment of syphilis. In the June issue he outlined the treatment for early syphilis. You can follow Dr. Harris in these articles and be sure that you are giving your patient the benefit of the very latest and the best for this disease. We deeply appreciate this service to the profession who are readers of *The Mississippi Doctor* and in turn the people they serve. "There is a time and a season for everything." This journal is trying to meet the needs of its readers at the opportune time. Dr. Harris has rendered us a fine service in furnishing us these two articles.

The prevention of mental diseases is one of the urgent needs of this state and of others. The medical profession is in urgent need of education on the subject, the people must have more light on the subject. Mississippi has two fine hospitals now to take care of the mentally sick. The Mississippi State Hospital at Jackson is one of the finest of this type in the world it is claimed. The East Mississippi at Meridian is a fine plant. But we need more unity of action in carrying out a campaign of education that would lead to prevention. Our Sanitorium at McGee is sending out its experts to find the early cases of tuberculosis and it is preaching the gospel of prevention. In the great field of mental diseases which constitute such a social and economical problem we need to find the incipient cases and to offer the means of prevention.

The Mississippi State Board of Health thinks that intoxicating drinks were accessory in fifty per cent of Mississippi's homicides for 1936. We believe that this percentage will more than hold good for the one million people crippled and the forty thousand killed the same year on the public highways. And evidence of incrimination in the contraction of venereal disease could easily be shown against strong drink in the same percentage. Alcohol has only a small place in our medical therapeutics. It is incompatible with the machine age in which we live. Twenty-five years ago our railroads quit using engineers who came on duty under the influence of whiskey. Now they haul millions of people millions of miles without a casualty. The consumption of alcohol constitutes our most serious social and economical problem. Injuries on the highways are taxing the physical and the financial strength of both doctor and hospital—to the limit. The alcohol problem is a special challenge to the medical profession, the social and the economical engineer of the people. We believe that the profession should meet this challenge soberly, with courage and with the scientific facts.

Mississippi should have a first class general hospital located in Jackson as a kind of clearing house for the rest of the hospitals of the state, the small ones. In this hospital deep x-ray and radium therapy should be available, an isolation ward and a department for the crippled should be included along with space for the more complicated cases of all types. This hospital added, and six to ten rooms for T. B. cases in the small hospitals of the statewith an extension service for mental diseases, Mississippi will stand in the front ranks in a set-up for medical service.

We are very thankful to Dr. Welch's Sanitarium for using space in our journal. We believe that Dr. Welch who is worthy and well qualified in every way, we are told, will render a very distinct service in this section of the state and especially in the rapidly growing and progressive city of Jackson. He has our cordial good wishes as well as our sincere thanks.

While the hospital is planning its insurance it might be well for the general practitioner to charter him a trained nurse, buy a little more equipment, and rush out to his clientele with better service in a more pleasing and palatable form. Cheap electricity in the home will be a big factor in helping him to apply this service.

You will read in this issue the first of a series of articles by Dr. King on the practical use of the x-ray by the general man. They will surely be very helpful.

Dr. A. E. Bostick, who led the state year before last in deliveries, is clipping along at one hundred and forty one up to Sept. 8 of this year.

The competent trained nurse can help the general practitioner to discover acres of diamonds in his poorly kept and unattractive office and in so doing can also increase the respect of the public for him and the profession. She can help him to give better service in a more palatable form.

If hospital insurance should cripple the usefulness of the general practitioner it would come at a price too high because he is yet the corner stone in medical service.

You will read with interest and with profit an outline of the papers read before the North Mississippi Medical Society at Holly Springs at its last meeting.

Don't be afraid for your clientele to read *Hygeia,* the great health magazine. It will be good for them and for you.

"The American Indian, as can be proven by reliable historical evidence, did not have tuberculosis prior to his contact with Europeans."

"I have not had a failure of perfect recovery from tuberculosis in a child in many years"—Dr. Lawrence F. Flick in his new book.

Hospital insurance has the center of the stage now. Some think it is the cure all in our medical economics.

The time will come when the people will look for the man who can prevent surgery as well as do it.

On to the Southern Nov. 30 to Dec. 3rd. It will pay you to go. New Orleans is the place.

What we know about the cancer problem we do not yet know.

Medicine is coming to be very badly neglected by the practitioners of the art.

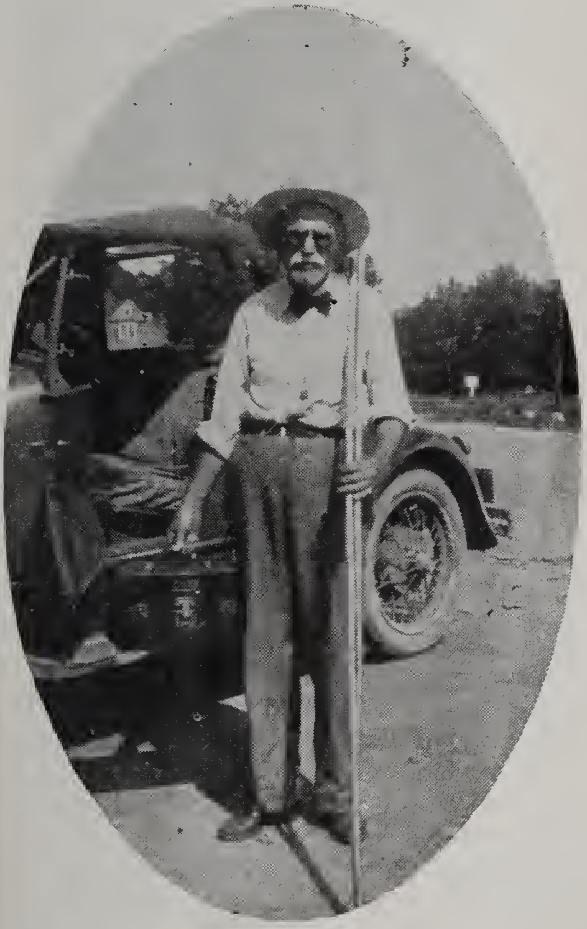
In the current issue of *Reader's Digest* there appears one of the most adroitly written and misleading articles I have read in a long while. The article is an example of high pressure advertising coupled with propaganda in favor of hospital insurance—yet it is so adroitly written that it is hard to see the real purpose of the article. Especially is it hard for the lay reader to see the purpose of the article. On the surface it appears to be the casual observation of a news gatherer for the columns of a disinterested magazine. When this article is read, as it will be, by thousands of lay readers the impression will be left that the under-privileged and poverty-burdened classes are benefited by the plan set forth. But the facts in the case are just the reverse, for in the summing up of the testimony it develops that bankers, merchants, and those holding good jobs are the only ones that give testimony in favor of the plan. And the advertising that is resorted to is of the most flagrant kind. The article winds up with an account of a picnic given by the hospital, and the group of doctors conducting this hospital, to the children who have been born in this hospital. The "rose embowered" grounds of the hospital is the setting for the picnic. The children play with "colored balloons" furnished by the hospital. The parents of the children (both aristocrats and plebians) are represented as mingling in most democratic style in the gayeties of the occasion. But let me quote, verbatim, from a personal letter from the president of the state medical association of the state in which the "immaculate" hospital is located: (quote) "the doctors connected with this hospital are outstanding surgeons and until they were mixed up with this insurance business they enjoyed the respect of the better class of physicians over the state. At this time they are not members of the county, state or national associations, and are practically ostracized by the profession of the state, for the reason of their activity with this sickness insurance. Their representatives make house to house canvasses and solicit buhiness for the hospital and take *anybody's patient who will pay their membership dues in advance."* (end quote). "Thereby hangs a tale"—verily *"The love of money is the root of all evil."* When you undertake to commercialize the practice of medicine and the care of the sick you may as well bid adieu to medical ethics and soon will follow disregard for *all* fair dealing.

* * * * * * * * *

On July 28, Senator J. Hamilton Lewis introduced his promised joint resolution looking to the federal regimentation of all licensed physicians practicing in the United States. Its caption is as follows: "To provide medical aid for the needy and stricken with illness who are unable, because of poverty, to provide treatment and hospitalization; also to establish all licensed medical practitioners as civil officers of national government." I have not seen the resolution as it was introduced. But in the A. M. A. Journal of August 7, there appears an editorial summation of this resolution. This summation by Dr. Fishbein, is in his characteristic and thorough style. Dr. Fishbein, as every one should know, is strongly against "state medicine" in any form that interferes in any way with the "free choice" of physician by the patient. In the editorial referred to, he neither endorses nor condemns the plan set forth in the resolution. But he takes great pains to make clear the purposes and working condition of the plan. Neither shall I attempt, at this time, to discuss it in detail. But I will say that the Lewis resolution more nearly meets the needs of the day than any plan I have seen. First it protects and maintains the sacred relation that has always existed between patient and physician. Next it provides medical care and needed hospitalization to the poor and needy (no other plan does this.) Next it guarantees income to doctors and hospitals alike. These three points of achievement are fundamental. They can be met—they should be met—they *must* be met if medicine is to continue to be scientific, progressive and honorable. No short cuts or by paths must be traveled. If we are to accomplish and fill our destiny we must serve *all* the people. There are more poor than rich. These need our service most. As I stated in my last editorial, it will require *much* money to enable us to serve them. The needed money can be made available if the tax leaks are plugged. This may appear to be too paternalistic to suit every body. But to me it is *fraternalism.* Since Cain whined and asked, "am I my brother's keeper" it has been our rule to dodge responsibility. I urge every one who reads these lines to read or *reread* the summation as given by Dr. Fishbein in the August 7 number of A. M. A. Journal. If you do not have this number, by all means procure it. More anon along these lines.

G. S. B.

New York.—At a meeting of the General Advisory Committee on Medicine and Public Health of the New York World's Fair of 1939, plans were adopted for new, dramatic and colorful exhibits of the anatomy of man and the progress of medicine and public health. This photograph shows seated, Grover Whalen, President of the Fair, and Dr. Louis I. Dublin, Chairman of the Executive Committee of the Advisory Committee; and, standing, Dr. Kendall Emerson, Managing Director Tuberculosis Association, and Dr. David J. Kaliski, Chairman of the Coordinating Committee of five county medical societies.



Dr. W. C. Walker, of Houlka, Miss., the Hub of the Universe. The fishing season is coming to a close for Daddy Walker. He is folding his lines and setting his cane in the corner. He is not folding his hands though, for social affairs will be rather brisk in his city and in other points in the state this fall with the good crops. The ladies will not be neglected. A few more new words, words known only to the versatile orator, will be added to his eulogies of the ladies. He will be set and ready for something appropriate for all occasions, medical, policial or social. More years and more happiness to him is our sincere wish.

DR. WELCH'S SANITARIUM

Four months ago, Dr. R. R. Welch, whom many Mississippi doctors will remember as having served as Superintendent of the East Mississippi State Hospital at Meridian, and earlier, as Assistant Superintendent of the Mississippi State Hospital at Jackson, established just outside of Jackson, Miss., a modern, private sanitarium—Welch's Sanitarium, Inc., Alcoholics, patients with drug habits, and mild nervous disorders are the types of cases in which this institution has specialized.

"Having been so closely identified in the past with a very great number of alcoholic, drug and mental cases, I realized what an urgent need existed for a modern, private sanitarium to care for and cure such patients," Dr. Welch said.

During the past four months, this sanitarium has admitted and treated with success a number of persons from all sections of this and other states.

Situated several hundred feet back from the Wiggins road, just off the Clinton Boulevard, on the outskirts of Jackson, is this attractive, two-story home. It is in a quiet, restful spot, surrounded by beautiful evergreen shrubbery and spacious grounds. Patients may come here comforted by the knowledge that their identity need not be divulged. Special attention is given to the preparation of good, "homelike" cooking.

Dr. Welch has visited the foremost hospitals of the same general type in Illinois, Missouri, Colorado, Michigan and California, where the most advanced theories and practices of mental care are found. A complete line of hydrotherapy and massage will be installed to provide for cabinet baths, Scotch douches, Sitz baths and special massage treatment. Assisting Dr. Welch are Mr. and Mrs. E. T. Whiddon. Mr. Whiddon was trained at the Kankakee State Hospital in Illinois, and later served for eight years as Male Service Supervisor in the East Mississippi State Hospital. Mrs. Whiddon was with the Female Service at this same institution for six years. An experienced professional nurse is on duty all night, and a trained house boy is always on duty.

Welch's Sanitarium has received the good wishes of many medical men in all parts of Mississippi, where Dr. Welch is well known and highly regarded.

MRS. KATE P. ANDERSON

Mrs. Kate Phillips Anderson, of Meridian, wife of Dr. W. J. Anderson, owner of the Anderson Infirmary, died at the infirmary yesterday, following an operation.

Funeral services were held at the First Baptist Church today, with Dr. H. C. Bass, pastor, officiating, assisted by Dr. J. A. Smith and the Rev. B. S. Vaughn and the Rev. F. M. Dick. Burial was made in Magnolia Cemetery.

She is survived also by a son, W. J. Anderson, Jr., a daughter, Miss Mary Kate Anderson; three brothers, Dr. J. T. Phillips of Lisman; Dr. J. H. Philips, Nashville, and T. M. Phillips of Marlin, Texas, and four sistes, Mrs. Florence Bryan of Meridian, Mrs. J. S. Brown of Shubuta, Mrs. R. C. Brown of Yantley, Ala., and Mrs. W. E Smith of New Orleans

Mrs. Anderson was born in Yantley, Ala., the daughter of the late Mr. and Mrs. J. R. Phillips. She removed to Meridian about 30 years ago, when she married Dr. Anderson.

MISSISSIPPI VALLEY MEDICAL SOCIETY "ANNUAL AWARDS"

The Mississippi Valley Medical Society, (Headquarters, Quincy, Illinois,) has recently established a number of annual awards in an effort to expand the influence of the organization. There are as follows:

1. To encourage recent medical graduates to promptly become interested in post-graduate study, the Society will award each year five free memberships to recent graduates from each of the recognized medical schools of Illinois, Missouri, and Iowa. These memberships will be good for two years and will be determined by the deans of the respective schools on the basis of school scholarship, it being required that the appointees be licensed to practice medicine in Illinois, Missouri or Iowa.

2. A silver and a bronze medal will be awarded each year for the most interesting scientific exhibits at the annual meeting.

3. A cash prize of $100.00 and gold medal will be awarded annually for the most interesting contribution to be submitted on a subject determined by the "Annual Awards Commitee." This contribution must be of interest to the physician in general practice and the winner will be invited to present it before the Society at its annual meeting.

4. The Society also has under consideration the annual award of a gold medal to one of its members for distinguished services rendered the profession. This will be determined by the Board of Directors at its next meeting (September).

The matter of annual awards will be in charge of a secret committee of five Society members appointed by the president.

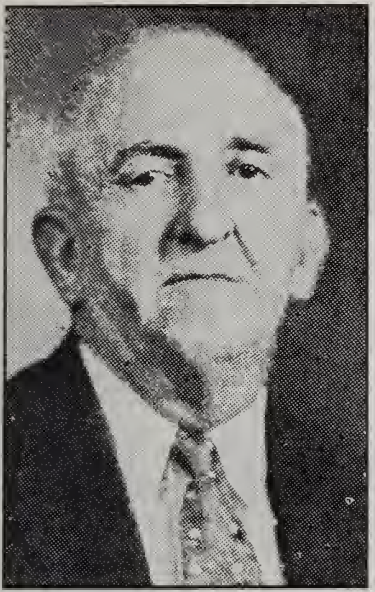
THIRTEEN-COUNTY MEDICAL SOCIETY TO MEET

The Northeast Mississippi Thirteen-County Medical Society will hold its third annual session at Aberdeen on Tuesday September 21. The meeting will be held at the City Hall beginning at one-thirty p. m. President L. L. McDougal, Booneville, will preside over the meeting, with Dr. A. J. Stacy, secretary. The Rev. C. G. Hamilton will open the meeting with prayer. The visiting surgeon is to be Dr. R. L. Sanders, of Memphis, one of the outstanding surgeons of the Mid-South. His subject will be "Diagnosis and Treatment of Gall Bladder Diseases." Others on the program will be: Drs. F. B. Long, of Starkville, subject, "Medical Ethics"; A. G. LeRoy, of Booneville, "Summer Diarrhea"; T. K. Chalder, West Point, "Arterio-Venus Fistula"; C. E. Boyd, of Amory, "Hospital Insurance."

Following the scientific program there will be an entertainment furnished by the doctors of Monroe county for the doctors and their wives.

Remember the place, the day, the hour, the fine scientific program, the cordial and lavish entertainment that is always accorded by the doctors of Aberdeen and Monroe county.

CHAMPION



Dr. R. J. Brown, Iuka, Miss., who captured the Class E. Championship in the North American Trapshooting Tournament. Dr. Brown has been Trapshooting only about ten years. He is fifty nine years old. He cracked 191 targets to take away a thousand dollars i ncash and other prizes. He turned the eyes of the shooting sportsmen of our nation to North East Mississippi. Dr. Brown has been for a long while a straight shooter for birds on the wing. He is a straight and a square shooter in the practice of medicine and in all of his dealings as a citizen. He is really just an amateur in this sport. But he has trained his brain to go straight to the truth at all times and behind his steady nerve and good judgment his eye follows the shortest distance between two objects. Dr. Brown, we are proud of you as a practitioner and as a champion Trapshooter.

DR. J. M. GOODMAN

Dr. J. M. Goodman, 69, of Cornerstone, for 40 years a practicing physician in Jefferson and Grant Counties, died here, Pine Bluff, Arkansas, August 21, at the home of his daughter, Mrs. C. B. Faucett. He had been ill for four months.

For the last 15 years he had made his home at Cornerstone. Prior to that time for 25 years he had practiced in Sheridan, Grant County.

In addition to his wife, he leaves five daughters, Mrs. Faucett of Pine Bluff, Mrs. J. J. McAuliffe of MeGehee, Mrs. W. E. Lockey of Little Rock, Mrs. Dale V. Reid of Searcy and Mrs. C. B. Dearing, Joinerville, Texas; nine grandchildren, two great-grandchildren, four brothers, R. P. Goodman, Malvern; Caleb, Daniel and Joe Goodman of Pleasant Ridge; one sister, Mrs. Sarah Jackson of Malvern, and a number of other relatives.

Funeral services will be held tomorrow afternoon at 2 o'clock at Ralph Robinson & Son Mortuary Chapel.

DR. STROUD IS NAMED TO AID WELFARE BODY

Dr. H. A. Stroud, of Jonesboro, represents Northeast Arkansas on the Technical Advisory Committee in the Crippled Children's Division of the State Welfare Department, appointment of which was announced Tuesday, August 21, by Miss Gussie Haynie, welfare commissioner.

Dr. D. A. Rhinehart, of Little Rock, was named chairman of the group. He was picked by Dr. O. J. T. Johnston, of Batesville, president of the Arkansas State Medical Society, to represent that body.

Other members of the committee are Dr. Joseph Shuffield, Little Rock, representing orthopedic surgery; Dr. W. G. Eberle, Fort Smith, representing Northwest Arkansas; Dr. John H. Burge, Lake Village, representing Southeast Arkansas; Dr. R. B. Robins, Camden, Southwest Arkansas; Miss Elizabeth Hoeltzel, Little Rock, representing the Arkansas Public Health Nurses' Association, and Dr. W. B. Grayson, state health officer.

Miss Haynie also announced today the following Advisory Committee to the Hospitalization Division of the Welfare Department:

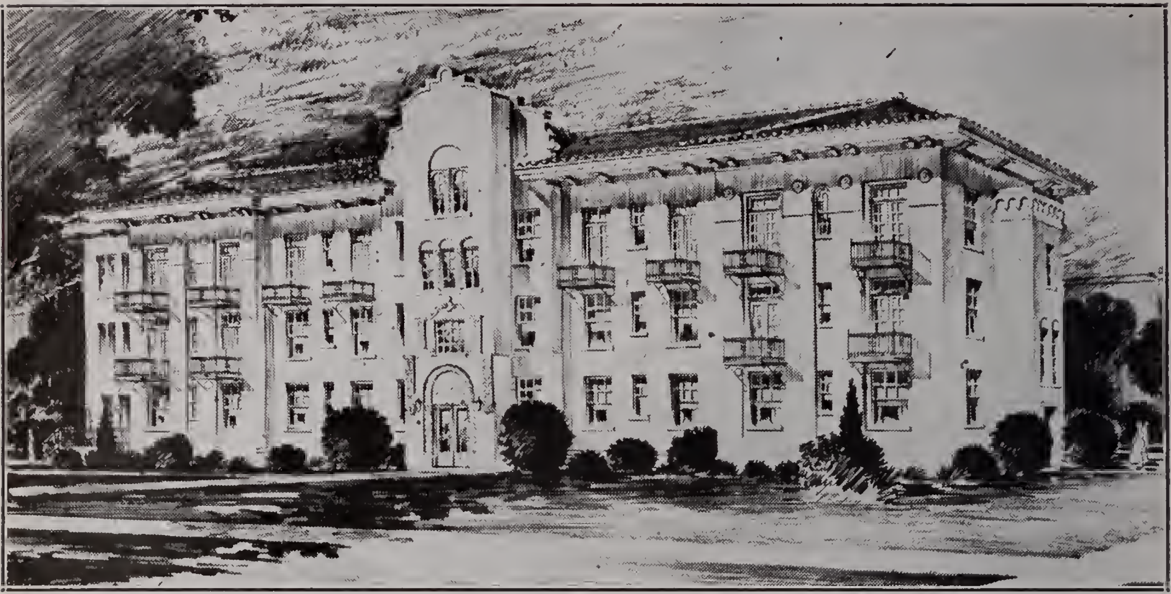
John J. Healey, Little Rock, president Arkansas Hospital Association; Lee Gammill, Little Rock, superintendent Davis Memorial Hospital of Pine Bluff.

The Selection of Dr. Stroud is an honor well bestowed. He will do well what ever he puts his hand to. He has been a progressive leader in medicine for many years.—Ed.

ANNOUNCING

Dr. Godwin W. Cocke announces the opening of his offices for the treatment of Mental and Nervous Diseases, 1023 Madison Avenue, Memphis, Tennessee.

THE BESSIE J. TAYLOR MEMORIAL



The architect's drawing above shows the planned Bessie J. Taylor Memorial, a nurses' home and training school named in honor of the late Mrs. Edmund Taylor, Sr., whose efforts were largely responsible for the erection of the present King's Daughters Hospital. The memorial building will be erected on the site of the old nurses' home beginning next week. The cost of the building is estimated by the architect, Estes Mann, of Memphis, to be $85,000. It will be completed sometime in December.

BEGIN WORK ON BESSIE TAYLOR MEMORIAL SOON

The new Bessie J. Taylor Memorial, a nurses home and training school for the King's Daughtors Hospital, will be erected beginning next week on the site of the old hospital to give Greenville one of the most efficient and up-to-date training schools to be found anywhere.

For many years the Hospital has been forced to the expensive employ of graduate nurses on floor duty because the arrangement of the old nurses' home would not accomodate sufficient number of student nurses to supply the hospital need. The old nurses' home with its antiquated arrangement, its meager accommodations and its out-worn facilities constantly hampered the progress of this hospital system and added an unnecessary expense, it was stated.

The cost of the new $85,000 Bessie J. Taylor Memorial will be met entirely by the King's Daughters Hospital. The larger training school will enable the hospital to reduce its expenses by $9,000 a year, an amount sufficient in itself to pay for the building in ten years time, Granville Stanley, manager of the King's Daughters Hospital stated in discussing the financing plan for the nurses' home.

Estes W. Mann, prominent Memphis architect, designed the new Memorial Building along the same lines as the present hospital with brick and concrete construction with stucco exterior in Spanish style.

The plan includes three stories, on a floor plan 150 feet by 40 feet near the same proportion of the hospital, with a living room, library, three reception rooms and suites for members of the hospital staff and a sun parlor on the first floor, and student rooms and sun parlors on the second and third floors.

The student rooms are grouped in suites of two rooms with connecting baths for the accommodation of four nurses. There are 34 double rooms for 68 nurses. Each room has two large closets and ample space for furniture.

This modern training school will enable the hospital to enroll a sufficient number of student nurses to replace the graduate nurses now being used in the hospital system for general duty.

"The superior facilities of this new school should also appeal to the better type of young women we like to have in our hospital," Mr. Stanley said. "With better accommodations to offer, we can now make our entrance requirements for student nurses more rigid," he added.

Successful bidders on the construction of the new building selected at the City Hall when the bids were opened Thursday were: General contract, M. T. Reed Construction Company, Belzoni, $65,233; plumbing and heating contract, Paine Heating and Tile Company, Jackson, $16,422; wiring contract, Robert H. Shaw, Greenville, $2,414.

Contracts for construction will be signed July 9, Estes Mann, architect supervising the building, stated.

The new building will require 130 working days for completion, according to the time working contract with the architect, Mr. Stanley said.

The sub-contractors and material dealers have not been selected yet. However, it is supposed that as much as possible of the labor and material will be used from the local supply.

LOCATES IN JACKSON

Dr. William R. Bethea, of Memphis, is to locate in Jackson at an early date. He is a native of Mississippi, but has been located in Memphis for many years. He is one of the leading men of the South in the field of radioloy. He is a fine man and will mean much to the city of Jockson which is growing very rapidly as a medical center.

He is a member of the following: The Memphis and Shelby County Medical Society, The Tennessee State Medical Society, The Southern Medical Association, The American Medical Association.

He is a member of the following special societies: The Radiological Society of North America, The American Roentgen Ray and Radium, The American College of Radiology.

He holds a certificate from The American Board of Radiology.

He is a World War Veteran. He volunteered for service in the World War, and was commissioned as Captain. Doctor Bethea served the entire period of the World War, and was Commander of a Base Hospital when discharged. He was discharged as a Lieutenant Colonel.

Doctor Bethea has done Radiology for twenty-three years, having limited his work entirely to radiology for twenty years, and having served as Radiologist for the Baptist Memorial Hospital for fifteen and a half years.

He has been a member of the Memphis Rotary Club for the past seventeen years and is a member of the Executive Boa rd of the Chickasaw Council for the Boy Scouts of America.

NEW MACON HOSPITAL HAS FORMAL OPENING

The new Macon Hospital was dedicated Tuesday. Receiving with Dr. L. B. Morris, superintendent, and Mrs. Morris were nurses and Mrs. L. L. Martin and Mrs. C. W.Emery.

In construction and equipment the Macon Hospital is the most modern hospital of its size in the state. It is brick building insulated with glass wool. The windows are the silent type. Air conditioning will be installed next spring.

The floor plan consists of six private rooms, two wards of two beds each aid two three-bed wards and four four-bed wards, major and minor operating rooms, x-ray rooms, clinical laboratory, fracture and therapeutic room, diet kitchen, doctor's office, sterilization room, kitchen, and staff dining room.

The medical staff will be composed of Dr. L. B. Morris, surgeon; Dr. S. F. Hill, active medical; and Dr. E. M. Murphey, Dr. J. D. Green, Dr. J. L. Melvin, Dr. T. C. Alford, consultants. The hospital staff will include Dr. L. B. Morris, superintendent; Miss Jewel Fair Fox, head nurse and anesthetist; Mrs. Era Russell, laboratory technician; Miss Elise Hicks, stenographer and bookkeeper; and graduate nurses, Miss Louise Pullen, Miss Bernice Hawkin, Miss Beale Burch.

FIFTH INTERNATIONAL CONGRESS OF RADIOLOGY

Radiologists from all of the world will assemble for the first time in America at the Fifth International Congress. The scientific program has bmore than three hundred contributions. The material presented will represent the very latest research in all phases of radiology, as well as achievements in therapy and diagnostic technique.

American radiologists have the first opportunity to attend an international event of this character without the loss of time and expense required in travel to a foreign land.

The publications of the Congress are now being prepared. The preliminary program has been published in three languages and distributed to members. The educational courses, which will be presented by a selected group of radiologists from throughout the world, are free to those members who register for them, and will undoubtedly prove to be a very valuable part of the Congress. Splendid arrangements are being made to entertain the associate members by the Ladies' Entertainment Committee. The afternoon reception on Sunday preceding the Congress, sponsored by the Chicago Roentgen Society; the group dinners on Sunday evening, where our radiologists may have the opportunity to be host for their colleagues from aboard; the evening meetings, arranged by four national radiological organizations; and the Grand Banquet of the Congress on Friday evening, which are free to all members and associate members, will probably constitute the largest group of radiologists ever assembled for such an event.

Membership is not required to attend the Congress. A registered guest of the Congress may secure all of the privileges accorded members by his payment of the required registration fees, except the inclusion of his data in the Portrait Catalogue. Palmer House, Chicago, September 13-17, 1937.—*The Bulletin.*

THE NEW PRESIDENT

Dr. George C. Williamson, of Columbia, Tennessee, was elected to the presidency of the Tennessee State Medical Association April 15, 1937. The subject of this sketch was born at Culleoka, Tennessee, August 13, 1889, a son of the late Dr. James G. Williamson and Mrs. Ella Wilson Williamson.

He received his early preparatory education at the Branham-Hughes School of Spring Hill, Tennessee, and the Columbia Military Academy, Columbia. He received his medical education at Vanderbilt University Medical School, from which institution he was graduated in 1912. After graduation he served an internship in the Woman's Hospital of the State of Tennessee. Following his internship he served on the surgical staff of the same institution and was associated with the late Dr. M. C. McGannon. From 1914 to 1917 while located in Nashville, he was chief of the outdoor surgical clinic at Vanderbilt University.

When war was declared in 1917, he volunteered for service with the One Hundred Fourteenth Field Artillery. On account of the illness of his brother, the late Dr. James Williamson, who died in 1918, and on account of the age of his father, he was compelled to resign his commission in the Medical Corps of the United States Army and return to Columbia to take up the responsiblities of his brother and aged father. He has been engaged in active practice of his profession in Columbia since that time.

Dr. Williamson has served as the president of his county medical society, president of the Middle Tennessee Medical Association, and Exalted Ruler of the B. P. O. E. He is a fellow of the American Medical Association and a fellow of the American College of Surgeons.

Dr. Williamson possesses the qualities which inspire confidence and admiration, both as a doctor and a very human individual. Toward his patients he exemplifies the attributes of a great physician—sympathy, understanding, scientific ability, and a high order of conscientious scruples. Toward his fellows in the practice of medicine he is considerate, ethical, and loyal. As a person he is Chesterfieldian in manner. Many of his admiring friends in the profession, and out of it, have so expressed themselves on many occasions.

He finds recreation in hunting, fishing, and reading. He is a great lover of dogs, horses, and the great out-of-doors. Much of his leisure time is spent in his recently constructed bachelor lodge located on the banks of Duck River, near Columbia.

Dr. Williamson will grace the high office of president of the Tennessee State Medical Association. He brings to it a charming personality, a superior intelligence, a very high sense of right, and a keen interest in the welfare of organized medicine and the services it may render humanity.—*Journal of Tennessee Medical Association.*

TO THE MEMBERS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

My dear doctors:

I desire to call your attention to the next meeting of the Southern Medical Association and Region 2, of the American Academy of Pediatrics, to be held in New Orleans, La., November 30, December 1, 2, 3, 1937. The advance programs of this meeting will be in your hands within a few days.

The membership of the Southern Medical Association is drawn from sixteen Southern States and the District of Columbia. Membership is limited to those physicians who are members in good standing of their County and State Medical Associations, and to the white officers of the United States Army, Navy, Public Health Service and the Veteran's Administration. The physicians who are selected to participate in these programs are outstanding authorities on the subjects selected.

Since this is *our greatest* Medical Meeting, and is our own Southern Association, permit me to urge upon you the importance of membership. The dues are only four dollars a year, and this entitles you to the Southern Medical Journal, which is one of the very best Medical Journals published. Write and send your dues to Mr. C. P. Loranz, Secretary-Manager of the Southern Medical Rssociation, Birmingham, Alabama, *at once!* You cannot afford to miss this meeting, and you will never regret being a member of this, *our own,* Southern Medical Association.

Looking forward to seeing you in New Orleans, I am,

Sincerely yours,

Harvey F. Garrison, Councilor From Mississippi, Southern Medical Association.

ANNOUNCING

The Turner-Gotten Sanatorium for the treatment of Nervous and Mental Diseases, Raleigh-La Grange Road, Route 6, Box 75, Memphis. Carroll C. Turner, B.S., M.D., neuropsychiatry; Nicholas Gotten, M.D., F.A.C S, neurosurgery.

APPOINTED HEALTH CHIEF

Dr. G. M. Mast, director of the Holmes County Health Department, has been named chairman of the Mississippi National Health Committee of the United States Junior Chamber of Commerce. The appointment was made by Roy L. Smith, M.D., of Tulsa, Okla. Dr. Mast will name members of the Mississippi committee at a later date.

Committeemen will wage a campaign of publicity and educational matter to stamp out and control venereal disease.

BELOVED PHYSICIAN PASSES AWAY

Dr. L. O. Carruth passed away at his home at Chesterville on August 28. A beloved physician is no more. But his good deeds we yet know and his good works will live after him for years to come. When measured by the standard of true greatness, Dr. Carruth was one of the real, big men of this state. He was big, and able and resourceful in his profession. A doctor friend of his who knew him quite well recently remarked to us that he was the ablest man in therapeutics in Mississippi. He was a great citizen. He had all the qualities in full measure that go to make up the family physician characteristic of the age in which he lived and practiced. He not only knew medicine, but he knew his patient. As well as prescribing medicine, he helped him to adjust his problems, and he inspired courage and activated ambition. He was a great and wise father—his children are eloquent evidence of this fact. In the art of living his active four score years tell the story; as an evidence of successful living, every tongue in his community with one accord declare it. Let us remember his example, able, resourceful, kind hearted, considerate, courageous.

He leaves the following children: Dr. R. W. Carruth and Allen Carruth of Chesterville and Robert and Horace Carruth ,of Belden; Mrs. G. T. Scott, Dyersburg, Tenn.; Mrs. John Wagner, Memphis; Mrs. Owen Garmon, Verona, and Mrs. Clark Adams, Belden.

In their loss of a father so devoted we offer our sincere sympathy; and in their heritage left by father and mother so great, we rejoice with them.

BOOK REVIEWS

Psychiatric Nursing, by William S. Sadler, M.D., Chief Psychiatrist and Director at the Chicago Institute of Research and Diagnosis, is prepared primarily to give nurses a more extensive and specific training in handling mental-hygience problems, but it will be widely welcomed by the doctor. The book shows a careful and thorough research, and it is divided definitely in tetbook fashion, discussing the various neurotic ailments and personality disorders with clearness and sufficient detail.

The book is divided into four parts. Part I gives a comprehensive introduction to psychiatry. Part II discusses human personality, taking up separately each of the neuroticisms, explaining the management. Part III deals with the psychoses, their treatment and salient nursing technique. And the last part enters into the direct treatmen of nervous and mental disorders, such às have been accepted after extensive experimentation and usage.

Dr. Sadler's approach to the problem of dealing with the psychiatric patient is born of long and practical experience in the field. He sees the problem as one closely allied to the body, and his treatment emphasizes the importance of dealing with the patient as a personality and all its affecting influences—heredity, environment and physical symtomatology. His understanding, and that of his collaborators, has provided a book of tremendous usefulness for the nurse and doctor; for it succeeds not only as an outline of practice but gives a new perspective that warrants a more sympathetic interpretation of all human ailments. Published by C. V. Mosby Co.

Injection Treatment of Hernia, by Carl O. Rice, M.D. Instructor of Surgery at the University of Minnesota, and Surgeon-in-Charge of the Minneapolis General Hospital. This book teaches the principles of the injection procedure as the most logical supplement to the surgical armamentarium in cases where operation is contraindicated.

After thorough consideration of different solutions and techniques the author brings convincing proof that the injection method of treating hernia is a safe, rational and a valuable means of therapy. He organizes the chapters of the books into classification by anatomical features: the inguinal variety with subdivisions of direct, indirect and postoperative; femoral; and ventral, with subdivisions of umbilical, periumbilical, epigastric and incisional. The author gives the various opinions as to the etiology of the various types. He stresses the importance of fitting a truss, ascribing a large share of the success of this accomplishment to the injection treatment. And the actual treatment is carefully described, aided by frequent illustrations.

In closing, he states that "the ideal hernia for injection treatment is one which is of the indirect inguinal variety; it is small, reducible, and it occurs in a young, healthy, intelligent individual who will cooperate in wearing a truss constantly and as long as deemed advisable by the surgeon." Published by F. A. Davis Company. Price: $4.50.

Tuberculosis, by Lawrence Flick, M.D. The fight on tuberculosis has been going steadily on for many years. In very recent years the interest seems to be multiplied. The application of surgery is largely responsible for the renewed efforts no doubt. Much progress has been made, but there is much more to be made. A book of practical knowledge to guide the general practitioner of medicine is just off the press by Dr. Lawrence F. Flick It is one of the most interesting we have ever read. Every practitioner in this country would do well to read this book. Dr. Flick has had sixty years of rich experience in handling the disease. He has treated it and he has trained others. Dr. Flick is the founder of the Pennsylvania Society for the Prevention of Tuberculosis, co-founder of the Rush Hospital, of White Haven Sanatorium, of the Henry Phipps Institute, and much other such work. He wrote *The Crusade Against Tuberculosis; What The Layman Should Know About It,* and *Development of Our Knowledge of Tuberculosis."* He is a man able to speak with authority. He takes up the disease in an orderly manner and carries it through in a most interesting and logical fashion, so much so that you can hardly stop reading the book until you have finished. He begins with the biological phenomenon, then tuberculosis as a disease, the tubercule bacillus, discussing it from a biological standpoint and how it gets into the host. The fighting powers of the human organism are explained, the role of the tubercle, tuberculosis is defined, its favored part of the body and how it proceeds. Heredity, immunity and predisposing causes occupy much space, likewise relation of colds to tuberculosis. Careful information is given on the diagnosis of tuberculosis from the "language of the lungs." The principles of cure, prognosis and treatment are interesting to the last word. Surgery in tuberculosis, the removal of tonsils, pregnancy are discussed fully. The problem of prevention is given due space and many other important questions. This book is certainly a great treat to the practitioner and one that no man should fail to read. The price is only three dollars. Write to 738 Pine Street, Philadelphia, Pennsylvania.

Emotional Adjustment in Marriage is written by Le Mon Clark, M.D., whose education and interest in social science and economics, in addition to his medical training, prepared him peculiarly for such a work as this. With open-mindedness he undertakes the problems of sex education, admitting the important role that sex plays in the happiness or sorrow of the human family. He lays much of the misunderstanding and maladjustment in society to ignorance, and pleads for a better orientation of parents to their own lives, and stresses a proper sex education for children. His approach of the problems herein treated is rational. Every physician is confronted with problems of sex in the life of the individual, in family relationships and in society. Oftentimes his solution of these problems spells happiness. Most of the questions on which the physician is consulted are answered in clearly defined approach—giving due importance to the economic as well as the emotional side of the problem.

This book will be a valuable aid to those persons of the laity who are interested in social welfare, but it will help every physician erase a multitude of problems that greet him in his daily practice, furthering the aim of the author "to increase the sum total of human happiness." Published by C. V. Mosby Company. Price: $3.00.

An Introduction to Dermatology, by Sutton and Sutton, is intended primarily for the student, but of all subjects that require study on the part of the general practitioner, dermatology is the most baffling. Besides the legion of skin diseases of which he knows a little, there seems to be always a new one. And of all the medical specialties none has made greater progress perhaps than dermatology. In this book, written by the professor of dermatology, Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S., and his son, who is an instructor in the department, special thought was taken to classify the affections—as the inflammation group, the parasitic group, the bacterial group, a complete section for syphilis and a large number of new diseases. To facilitate the differential diagnosis and a rational plan of treatment, the authors have provided ample illustrations, but the essentials are given far more space than clinical procedure. Notwithstanding, the book is a profitable investment for the practitioner and dermatologist. Published by C. V. Mosby and Company. Price: $5.00.

Synopsis of Gynecology is one of a series of convenient-sized books being published by the Mosby Company, designed to give the essentials of each specialty treated. This synopsis is based on *Diseases of Women,* textbook by the same author, Harry Sturgeon Crossen, M.D., professor emeritus of Clinical Gynecology, Washington University School of Medicine, and Robert James Crossen, M.D., assistant professor of clinical gynecology and obstetrics, Washington School of Medicine. The book is particularly adapted to the student's needs, but it will be hardly less valuable to the practitioner who wishes a concise, up-to-date reference on gynecology to employ in his daily practice. The low price of the book should also be a point that appeals, for it is worth over again its price. Published by C. V. Mosby and Company. Price: $3.00.

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

Helpful Hints in the Diagnosis of Gastro-Intestinal Diseases*

WALTER C. ALVAREZ, M.D.
Division of Medicine, The Mayo Clinic
ROCHESTER, MINNESOTA

Mr. Chairman and members of the Mississippi State Medical Association:

The first and best hint that I can give you in regard to the diagnosis of gastro-intestinal diseases is to take a better and a longer and a more careful history, and then spend a little more time thinking about what it might mean. One great difficulty with the practice of internal medicine as I see it today, is that so many men, as they become prominent and busy, come to feel that they can spend only ten minutes or so on a patient and as a result they try more and more to make a diagnosis on the basis of a lot of laboratory reports that come to their desks.

After the patient has had the special tests and examinations he comes before the consultant who takes out the sheaf of reports and looks them over. If there is anything in them which indicates the presence of any disease, that disease is likely to be diagnosed even if the symptoms do not fit with it at all. Thus, if there are amebae in the stools all the patient's troubles are assumed to be due to amebiasis, and if the appendix did not fill very well with barium or if it filled too well, the patient is said to have appendicitis.

Naturally this type of practice is bound to lead to the making of many serious mistakes, and unless it is stopped it is going to give medicine a bad name. As you men come to see the results of these mistakes frequently, as I am seeing them, and as you contemplate the amount of suffering and needless expense that they bring to many poor patients, I am sure you will feel as strongly as I do that something must be done to correct the type of practice that produces them.

Recently as I visited a roentgenologist in a small city I found him bitterly resenting the fact that so many of the physicians who send him work expect him always to make a positive diagnosis for them. He knows as you and I know that this can not be done. There just isn't anything macroscopically wrong with the stomach or gallbladder or appendix or colon in more than half of the patients who come to us with indigestion. Their troubles are functional and are due often to the strain and unhappiness of life.

No, one can not safely make diagnoses with factory methods. The physician must do some observing himself, he must take a long history, and he must do some thinking about the problem before him. As I see the unfortunate results of diagnoses made purely from laboratory reports I am often reminded of what Oliver Wendell Holmes once said to one of his patients whom he caught in the library copying a prescription out of a medical book. He said, "Look out, or you will die of a misprint some day!" Similarly if we make a diagnosis of diabetes or angina purely on the basis of some laboratory girl's report of a high blood sugar or of a peculiar electro-cardiogram the patient may nearly die of worry.

To show what can happen, a while ago a fine young physician, a friend of mine, received a telegram from his sister saying that she was going to be operated upon the next morning for cholecysititis. As he knew that his sister had never had a colic or much indigestion, and as he knew also that she had been suffering with a number of neurotic symptoms following heavy mental and emotional strain over an unhappy love affair, he immediately telegraphed her to wait, and he took the first airplane to her city. There he found a busy and prominent surgeon very much annoyed because the operation had been held up. As he said to my friend, what was he fussing about? The roentgenograms showed a nonfunctioning gallbladder and wasn't that enough to satisfy anyone? After pointing out that the patient had never had a colic and had never bloated after dinner, my friend turned to his sister and asked her how long she had kept the dye down. She said, "It all came up in about five minutes!" Naturally, it did not get into the gallbladder, and later studies showed, as was to be expected, a perfectly normal cholecystogram. After a couple of months of rest and the straightening out of the love difficulties, the patient became perfectly well.

---

*Read before the Section on Medicine at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 11, 1937.

Here also comes a man referred to me by one of my good friends with the statement that the patient has diarrhea due to amebiasis, and, after two courses of treatment, he still has twelve bowel movements a day. Now I never accept without question a patient's statement to the effect that he has vomiting or pain or diarrhea or anything else. The "vomiting" may turn out to be regurgitation immediately after meals which is quite another matter; the "pain" may turn out to be a burning or a feeling of distention; the "diarrhea" may turn out to be a fear of diarrhea, and "gas" may turn out to be the gulping of air. Hence, I said to this patient, "What do you mean by diarrhea? Are the movements watery or soft or bloody or what?" His answer was "No, they consist of little, hard, round balls." This naturally put an entirely new complexion on the matter. I remembered then that as I shook hands with the man I had noticed that his skin was much too warm for any normal human being. I had noticed also that his eyes were a little staring. Next morning they found that his basal metabolic rate was 65 per cent above normal, and when a small toxic goiter was removed he felt like a new man and he lost his "diarrhea." Someone says, "How about the amebae?" Well, I feel sure they were there, but probably they were too few to produce any symptoms, and obviously they had nothing to do with the patient's troubles.

I could go on talking to you for the rest of the afternoon describing cases like this, in which one or two searching questions could have brought out the real diagnosis and saved the physician from wasting his time and failing to help a good patient.

Here, for instance, comes a woman who says that she wants a diet for flatulence. She has been from physician to physician and already has a number of printed or typewritten diet sheets, none of which has helped her in the least. I ask her what she means by gas. Is she belching or bloating or does she pass a lot of gas? She tells me that she neither passes gas nor bloats and that she can belch by the hour so that the people can hear her in the apartment above and the apartment below. Immediately I know that she is an expert air swallower and I know also that I could give her diets from now until doomsday and they wouldn't do a particle of good because really she has an excellent digestion. Further questioning then shows that the trouble with her is that she is fighting with husband and trying to make up her mind whether or not to get a divorce.

Imagine trying to diagnose that with a laboratory test or trying to cure it with a diet; and yet many physicians are attempting this sort of thing daily because they feel they are in too much of a hurry to take a history. As many a physician has said to me after hearing me talk on this theme, "I can't sit and spend half an hour or more on a history as you say you do; I have to earn a living." And my answer is that I have to earn a living too and that it can be done while doing careful work. Besides, the man who hates to spend more than ten minutes on a history is likely to waste hours on ineffectual, because misdirected, treatment.

The other day I received a letter which pleased me much. It was from a woman I saw over a year ago. She came to the clinic on a stretcher with a diagnosis of angina pectoris. Her letter now tells me that she is walking several miles each day and occasionally climbing in the mountains with comfort. Here is her story. Some four years ago she had to nurse a husband through a long and hopeless illness. As commonly happens in such cases a highly nervous and delicately organized woman kept up bravely as long as the loved one needed her, and then when the strain was over she crashed.

She had a fainting spell with a nervous chill and pains about her heart. As I remember the story, the first physician who was called in apparently assumed that the trouble was in the heart and gave a big dose of digitalis. When she didn't get better she went to a city consultant who sent her for an electrocardiogram. When the report came back that there was an inverted T wave in one of the leads he diagnosed a coronary thrombosis, told her that the outlook was bad, and advised her to spend much of her time in bed. It was most unfortunate that he hadn't asked about the previous use of digitalis, because if he had learned of this he would have known why the electrocardiogram was peculiar and would have waited to get another. Also if he had taken a careful history he would have seen that the character of the pain was decidedly atypical and that the story was definitely that of a cardiac neurosis. Even with the help of two normal electrocardiograms and the exhortation of two optimistic cardiologists it took me many days of argument to cheer this woman up and get her out of her bed.

Thus far I have been talking about patients with pure neuroses and with little if anything in the physical signs or laboratory reports to indicate the presence of organice disease. In these cases mistakes will be made only if the phisycian makes too much or of some little change around the appendix or gallbladder, or some slight change in the electrocardiogram or the basal metabolic rate. One of the things that the young physician needs most is a knowledge of the limits of normal. For instance, if he knows that extreme degrees of ptosis of the stomach and bowel are found commonly in powerful athletes who have perfect digestion and whose bowels move every day he will not pay any attention to ptosis when he sees it in films, and will not think of using it as a possible explanation for the patient's troubles.

Now there is another type of patient in whom mistakes are certain to be made if the physician depends on a laboratory girl or a roentgenologist for his diagnosis. For instance, here comes a woman who is regurgitating her food immediately after meals. She has no nausea; she has always regurgitated with the greatest ease ever since she was a child, and she has a hysterical, somewhat psychopathic make-up. She has also been through a lot of nerve strain in office and home. Now you and I know that under such conditions one must say that the regurgitation is functional in origin. I have seen hundreds of patients with such regurgitation and I have yet to see one who was permanently helped by any type of operation.

Now, let us suppose that on examining this woman, we find one or two large cholesterol stones in a normally functioning gallbladder. If we hadn't already made the definite diagnosis of a neurosis from the history we would be likely to say, "Ah, here is the cause of her trouble," and to send the woman for an operation which would not do any good. Why wouldn't it do any good? Because careful questioning shows that she had no symptoms of gallbladder disease; she never had a colic, and she has no trouble with gas or indigestion after dinner. The stones are "silent."

There is still another type of patient in whom the diagnosis must be made from a good history because if all the laboratory tests known to man were done they would fail to show anything wrong. To show what I mean, the other night after a meeting like this a physician came up to me and said, "Doctor, what is new for the treatment of gas? I have a woman of fifty who has a terrible bloating which I can't seem to help with any medicine. I have had her to many consultants who have diagnosed cholecystitis, appendicitis, ulcers and what not. Now they say she has food allergy and I would like your advice about that."

I asked him how the flatulence occurred; was the patient ever free from it, and if so for how long a time. His answer was that it was a curious thing that the patient had just been on a month's vacation during which she didn't have a bit of trouble. I said, "Well, that immediately rules out allergic sensitiveness to food, and I see no need for making further skin tests or following up that line of study." My next question was, "How long did the attacks last?" The answer was they practically always lasted two weeks. I then found that the interval between attacks was usually two weeks. This immediately suggested to me a cyclic mental disturbance so I asked him if there was much difference in the woman's temperament during the times when she was well and when she was full of gas. His answer was that when she was without gas she was a charming person, interested in everything, and a delightful companion to her husband. But each time just before the bloating came on she changed to a depressed, querulous person with whom it was almost impossible to live. My next question was, which one of her relatives was insane, and the answer was that her mother had died in an asylum. I felt then that the diagnosis was made because I know of a number of patients like this who have mild, unrecognized manic depressive insanity with severe bloating during the periods of depression.

Incidentally, we physicians are continually seeing patients who are mildly insane and whose troubles we do not correctly diagnose. If a man were to come in and tell you that he had a frog jumping about in his stomach you'd know he was insane, or if a woman were to come in and say that she had a tapeworm which she could feel crawling around inside of her and biting her, you'd know how to classify her, but if a woman with exactly the same type of insanity were to come in and tell you that because of an obstruction in her bowel which caused loops to thrash around and distend and roll, her brain was being poisoned and destroyed, you might easily be led to operate on her, and you wouldn't think of insanity until perhaps two years later when instead of getting paid for your work you got nasty and abusive letters telling you she had had to have four more operations for the same obstruction which you failed to relieve. Every year I see a number of these people with a record of anywhere from four to ten abdominal operations done one after another. My conclusion generally is that they are crazy, and almost always I can find that they have relatives in insane asylums. Unfortunately it is often difficult to convince a physician that these people are insane because they are quiet and on most matters they seem to talk sensibly.

But after we have taken a history, what is the use of it unless we do some thinking about what it might mean? For instance, here comes a woman who is skin and bones. She is barely able to walk, and she leans heavilv on the shoulder of her daughter. Why? Because for months she hasn't had enough to eat. When a year ago she developed a bad eczema on her left hand, some allergists interdicted many foods and some dermatologists one after the other cut out most of the rest. She had gone to prominent physicians but apparently they were so busy they could not stop to think over her problem. I am no dermatologist but it seemed to me that an eczema limited to but one hand could not be due to the eating of food. If it were, why shouldn't the lesion be on both hands? Accordingly I put her back on three square meals a day and sent her home to watch and see what irritant substance came in contact with the left hand which didn't touch the right. She came back a month later looking like a new woman and with the eczema gone. She had found that each morning as she took care of her beloved primroses, she picked the dead leaves off with the left hand while she held the watering pot i nthe right!

Obviously we must learn to know our patients better; we must get their stories of strain and unhappiness, and in doing so we will often grip them to us closely as friends. Such friendship is often essential if we are to help the patient and influence him or her for good. You know how hard it often is to get a nervous patient out of your office, willing to pay her bill gratefully, and then to go home and mend her ways so as to pull out of a neurosis. Often you can not accomplish these ends unless you have earned the confidence and liking of the patient by listening sympathetically to her story, finding out what a miserable situation exists at home, and talking over with her what might possibly be done to remedy matters. Our suggestions for treatment must be practical and workable. Obviously we mustn't tell a woman whose husband is a ne'er-do-well that she should go to Florida and lie around on the beach in the sun. That would be silly and cruel. What we can often do with such a woman is to show her that if she will stay in bed mornings for a month or two she can get the needed rest.

Summary

A good history is often essential not only so that a correct diagnosis can be made but so that the friendly and trustful cooperation of the patient can be gained, and the treatment can be made practical and helpful.

In many cases a diagnosis can not be made solely on the basis of laboratory reports, and if in desperation the physician seizes on what seems to be some slight abnormality such as a basal metabolic rate of -15 or a slight imperfection in the outline of the shadow of the gallbladder he is bound to go wrong and do harm.

In other cases the patient may have some organic lesions but a good history will show that they have not been giving rise to any symptoms, and the real cause of the patient's trouble is a neurosis due perhaps to an unhappy marital situation.

New Trends in Public Health*

FELIX J. UNDERWOOD, M.D., F.A.C.P.
JACKSON, MISSISSIPPI

As a Christian people we may say that the principle of social security was given mankind nineteen hundred and thirty-seven years ago. But the comprehension of this philanthrophy as applied in its broad sense to various human relationships has taken twenty centuries to grow into a nation's recognition of public responsibility for the health and welfare of its citizens. A developing social consciousness is leading people generally to the conviction that community health is the concern—the paramount concern—of the state.

Within the last decade this idea, more or less indefinite for a time, has crystallized into a new conception of the duties, responsibilities, and functions of government, a tenet which involves the benefits of the group rather than the individual. It is plausible to believe that this doctrine, rather than the terror of depression, is responsible for the Social Security Act. I like to think, moreover, that the splendid humanitarianism of its provisions took root all those long centuries ago and that the Act itself marks a stage of growth in human affairs.

I am not discussing trends in public health solely in relation to the Social Security Act, but it is scarcely possible to talk about public health today without consideration of the tremendous impetus along all lines which its provisions have given. By *new trends* is meant their social significance—not *new* necessarily in conception or inauguration. Increased funds from various sources, the growing sense of responsibility on the part of the government, the greatly augmented interest of the medical and dental professions and desire of other groups and individuals to work for the common good have intensified and extended all health activities. The following concise report indicates the stimulation which Social Security funds alone have given public health programs throughout the United States.

Organization and Strengthening of Services

About 120 new local health organizations have been established in the past year.

Deficiencies in the organization of the state health departments have been made up through the use of Social Security Funds in nineteen states.

Thirty-three state health departments have strengthened their local health administraion.

Eleven have added new units or sections for the promotion of industrial hygiene.

The control of acute communicable diseases has been materially strengthened in twenty-four.

In twenty-seven states the public health laboratory facilities have been augmented.

Nineteen have made improvement in personnel and equipment for handling their vital statistics.

Public health nursing has been strengthened in practically every state.

Thirty-four states have the active cooperation of the medical profession in special measúres for the control of syphilis and gonorrhea.

And thirteen states have inaugurated programs for the control of tuberculosis. Of course, many states already had tuberculosis prevention programs.

A strong impetus has been given to the development of oral hygiene.

Special health problems peculiar to localities are being attacked. Examples are: Trachoma in Missouri and Kentucky; rodent plague on the West Coast; and malaria and hookworm disease in the Southern states.

Trained Personnel

Among new health advances in public health procedure is the general tendency everywhere toward securing technically-trained workers—epidemiologists, laboratorians, sanitary engineers, nutritionists, and others. It is considered of utmost importance in the beginning to employ high-grade individuals, rather than to depend on the old trial-and-error method of placement. More than ever before emphasis is now placed on continued training and study. Medical officers are sent to schools of public health; nurses are given scholarships for further training; personnel, from directors to clerks, are sent away to observe, study, and become informed on discoveries in medical science and on the latest trends in their respective fields. Medical schools, nowadays, are giving particular attention to the establishing and strengthening of courses in preventive medicine. Until recently few of these schools have had curricula to match the progress of public health practices and principles. However, schools of medicine and a few schools for nurses are today stressing public health.

---

*Chairman's Address, presented before the Section on Hygiene and Public Health at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 11, 1937.

Advisory Services

For many years a number of state boards of health have had skeletal organizations not only in technical and advisory services but also in what might be called basic responsibility concerning such fundamental activities as maternal and child hygiene, epidemiology, and tuberculosis control. Attempts are being made to adequately staff boards of health, and particular attention is being focused on field supervisory and advisory services. Noteworthy is the inclination toward the training of administrative and scientific personnel in activities such as vital statistics, sanitary engineering, laboratory, and preventable diseases in order to furnish the best supervision and advice from the state health department. Central office personnel so trained render the largest possible field service at the smallest possible cost for administration. Dr. W. K. Sharp says: " A small, compact but highly-trained central staff is needed for the purpose of furnishing expert consultant and advisory services for full-time local health departments, since they are not in the position to purchase this service themselves. The average county at the present time can not furnish a full-time epidemiologist or sanitary engineer and very few can provide finances for a laboratory, whereas the state, seeing the situation as a whole, can provide the highly technical service."

Appraisals and Uniform Records

There is. also, a general tendency toward the setting up of standards of efficient administration and evaluation of results, and making uniform plans of procedure based on a generalized, well-balanced program which is designed to meet the needs of the particular area. Uniformity in records and reports, as well as appraisal of results, is sought.

Training Provided

Further training of professional groups is a conspicuous present-day trend. This will help to provide the necessary, definite leadership and supervision of health activities, and to raise the health standard of communities. I have mentioned already the additional training of nurses and other public health personnel, and we have all heard a great deal in the last few years regarding teachers training. This particular insistence that school teachers be especially trained to teach health is outstanding. Postgraduate medical education is an important activity in which a number of states are at present engaged. These postgraduate courses afford many physicians much needed opportunities to receive at home additional information and training in such subjects as obstetrics and pediatrics.

Research and Expansion

Scientific research, investigations of disease and problems of sanitation represent active trends in medicine and public health. Studies of syphilis, cancer, acute rheumatic fever, pneumonia, nephritis, cardiac, and other diseases are being conducted. The epidemiology of tuberculosis, typhoid, and scarlet fever are subjects of extensive study.

Efficient health organizations feel the need of making the greatest effort where the greatest saving of life can be accomplished. They are, for instance, more and more, centering their attack on younger age groups, having long realized the need for concentration at this point. Diphtheria immunization work is being directed to infants and pre-school children. Health departments are no longer waiting for people with a history or symptoms of tuberculosis, but are developing intensive detection programs to find individuals not yet showing manifest signs of the disease. The tuberculin test and x-ray are no longer limited to a few children suspected of tuberculosis, but are made available to contacts of cases and suspects who are referred by the family physician to the clinic for examination.

We see, too, special health activities in infant and maternal hygiene, in industrial hygiene, and in the control of malaria, pneumonia, venereal diseases, and hookworm disease. The growth of industrial hygiene units in state and city health departments has been amazing. Prior to 1936 there were only five state departments of health conducting such activities; now there are seventeen. Funds released through the Social Security Act and a study of the causes of occupational disease and the conditions surrounding them have been largely responsible for the growth of this particular activity.

Malaria Control

Mosquito control, particularly for malaria restriction, has been gradually shifting from temporary expedients to drainage as the more nearly permanent device. Colonel J. A. LePrince, Director of Sanitary Engineering of the U. S. Public Health Service, after inspections of anti-anopheles mosquito control measures in Mississippi, reported to the Surgeon General that malaria control work in Mississippi would probably become a standard in the future for large areas of the country. Ditches for the elimination of production areas of malaria mosquitoes within flight range of populated areas have been well constructed. Extensive practical research work in connection with sodding of ditch banks is being accomplished; departures from past practices in selection of materials used in ditch lining have been advantageous.

Sanitary Engineering

"The Social Security Act has perhaps done more to stimulate sanitary engineering activities in the field of public health than any recent event. The emphasis, in its administration, on improved training, expansion of scope, and increase in numbers of engineers, has made possible a renaissance and extension in the field of environmental control which has done much to correct the deficiencies . . . of these activities during the depression years."[1]

Because of the rapid advances of community sanitation programs carried on in Mississippi with the aid of various federal relief agencies, the point has been reached where we feel we can devote more time to an intensive program of water supply improvement in rural homes and schools. This work will have a material effect in lowering our morbidity rates from such diseases as the dysenteries and typhoid fever. Sanitary drinking and hand-washing facilities also have been provided in numbers of rural schools. This work is already showing its effect in the reduction of trench mouth among rural school children.

We are pushing the matter of installing pressure water supplies to provide running water in the farm home. The availability of running water invariably leads to the installation of bath room fixtures and kitchen sink, thereby providing better hygienic conditions for the farm family as well as lightening the labors of the housewife. This may not have much direct effect on public health, but I maintain that anything we can do to improve living conditions and make life a little more pleasant in the farm home will indirectly, at least, pay dividends in improved health for these families.

Maternal and Infant Care

There are other advances in health work stimulated by increased funds from outside agencies and by the growing citizen interest that I should like to mention. In Mississippi one great saving of life and suffering concerns mothers and children; maternal and infant death rates are disconcertingly high. While general health activities serve to promote infant and maternal welfare, we are extending projects specifically designed to curtail the loss of life in these groups. Definite and constant efforts are being made to get mothers to go to physicians for early prenatal care, and to receive attention and instruction during the entire maternal cycle.

Instruction in infant and child care has been extended by increasing the number of medical and nursing child health conferences in local areas, enlisting participation of local committees, and encouraging interest generally. With Negroes comprising more than fifty per cent of our population, our infant and maternal death rate will continue unreasonably high unless vigorous measures are taken to improve the health of negro mothers and babies. The standards of midwifery have been raised and mortality rates lowered. Through the medium of midwife clubs the morale of the group has been sustained and the opportunity given for instruction by physicians and public health nurses. Such practical and simple methods of instruction have been followed that midwives, mothers, and in some instances entire communities, have been impressed with the feasibility as well as the value of adequate maternal and child care. An old song of these midwives—sad and eloquent like most negro melodies, indicative nevertheless of gratitude and faith—might well express the hopes which this protection brings to mothers. The song runs, "Oh, Mary, don't you weep!"

---

[1] Abel Wolman, *American Journal of Public Health,* Vol 27, No. 1, pp. 44-45., January, 1937.

Public Health Nursing

The public health nursing service in Mississippi, as elsewhere, has received a tremendous stimulus. The number of nurses has been increased and concern given to public health nursing standards and technique. Because of higher educational and professional requirements, many applicants have taken post-graduate courses in obstetrics, pediatrics, and communicable diseases. Thirty-two Mississippi nurses received instruction last year in public health nursing in accredited universities.

Other Services

Among other services promoting infant and maternal as well as general health are:

Milk supervision

A vital statistics field man who devotes his full time to checking registration of births and deaths, a means of discovering problems pertaining to infant and maternal health

A Public Health and Medical Library, an outgrowth of efforts to correlate and classify literature on the program of maternal and child health

A Division of Health Education, seeking to instruct mothers and prospective mothers by contact with women's clubs and various community groups, and by work in the schools

A mouth hygiene program built around the four groups: maternity, preschool, school, and adult.

I have saved for the final discussion in this paper certain tendencies which are, perhaps, too young yet to have the definiteness of *trends*. Perhaps they are only hopes, or trends a-borning. The first one is the slow growing conviction in the minds of many people that disease and death have no political alliances. More and more states are selecting their officials because of administrative ability—not political faith; the tenure of office is becoming secure; state health officers selected by non-political boards are given a better opportunity for efficient service. Alabama with fifty-five full-time county health departments has had since 1875 only four state health officers; Kentucky only two. Other states have as good a record. Such a course promises much in the way of more effective health service.

I speak, now, of something long-hoped for by every good health worker—that is, the close relationship existing between the medical and the public health professions. Health departments are concerning themselves in many instances with diseases, which, while not communicable, are burdens because of their wide prevalence. The campaign against such diseases as cancer points the way to other coordinated efforts. The full cooperation of the medical profession in solving community health problems is essential if the general health level is to be raised.

And, at long last, that trend which public health has for an unconscionable time awaited—social courage! A distinguished example is Surgeon General Parran's fight against what he calls the national hush-hush policy concerning syphilis. Mental hygiene may be cited; our changing concept of education has among other things encouraged the giving of adequate sex information to younger age groups. The safeguarding of this one growth process can be considered "preventive medicine" of high order.

In regard to advertising, we have shown a few—too few—signs of fearlessness. We are indebted beyond measure to certain commercial concerns for the splendid work which they have done. But when we see and hear the health fallacies, the distorted facts, the overwhelming amount of erroneous teaching and wrong emphasis concerning health in our magazines, over the radio, on billboards, we can understand how grievously hampered is much sound health teaching by this flagrant and dishonest use of advertising. Consideration might be given here to other and more vicious forms of quackery. I refer to so-called herb specialists, Indian doctors, and the like.

Dr. Haven Emerson says: "For an ampler national health, we must have courage to invent, to test, to apply; courage of society to demand those services which science is ready to perform." Finally we must have a deeper recognition and wider practice of those principles of social security which have been developing through twenty centuries; old as trends go—but forever new in their application to human need!

Differential Diagnosis of Acute Conditions of the Abdomen*

H. N. MAYES, M.D.
NEW ALBANY, MISS.

Diseases that Require Immediate Operation: Acute appendicitis; ruptured peptic ulcer; pancreatitis; intussusception; volvulus; mesenteric thrombosis; ruptured extra-uterine pregnancy; twisted ovarian cyst; diverticulitis; subphrenic abscess; other types of obstruction not mentioned above; penetrating wounds of the abdomen; severe bruises of the abdomen.

Diseases That Do Not Require Operation: Acute food disturbance and allergy; kidney colic; pyelitis; typhoid fever; pneumonia; angina pectoris; influenza; tabes; bite of black spider; shingles; amoebic dysentery; intestinal worms.

Diseases That Do Not Require Immediate Operation: Stone in kidney; acute cholecystitis; acute salpingitis; advanced peritonitis; certain advanced cases of appendicitis; abscess of liver.

Appendicitis

Often there is a history of previous attacks. These attacks are noticed as pain in the abdomen of a few days' duration. If the attack is acute the patient looks to be sick. The patient complains first of pain in the upper abdomen, which pain soon locates itself in the lower right fourth of the abdomen; second, nausea and vomiting. There is local tenderness in the lower right fourth of the abdomen. There is also much spasm in the lower right fourth of the abdomen. As a rule the patient will have fever but sometimes there is no elevation of temperature. There is usually an increase in the white count with an increase in the polymorphonuclear cells.

In the diagnosis of appendicitis in children we must consider the possibility of pneumonia, acute entero-colitis, acute abdominal allergy, intussusception, pyelitis, influenza. More remotely possible is intestinal worms.

Acute Perforated Peptic Ulcer

There may or may not be a history of previous pain in the upper abdomen. This pain comes on a few hours after eating and is relieved by food. The ulcer patient is usually under normal weight and past twenty years cf age. The patient is stricken with an agonizing pain in the upper abdomen. Though this pain begins in the upper abdomen it may soon extend over the entire abdomen. The patient appears to be in great terror. The breathing is short, jerky, and shallow. The approach of the examining hand to the abdomen is resented. The patient begs not to be touched. Temperature and white cell count at first are likely to be normal. The temperature will soon be elevated, the pulse will become more rapid, x-ray may show gas above the liver. The breathing is costal in character and not abdominal. Ausculation reveals a silent abdomen. Early operation is indicated. Do not wait for the fast pulse to operate.

Acute Intestinal Obstruction

We should go into the history carefully inquiring about the different types of hernia; previous operations; a history of appendicitis, pelvic peritonitis, or any type of peritonitis. We should also inquire as to the history of cancer.

The causes of intestinal obstruction are: intussusception; volvulus; mesenteric thrombosis; strangulated hernia; malignant tumors of large intestines; congenital bands and malformations; adhesions following operations; adhesions following peritonitis; adhesions following appendicitis.

The diagnostic points of intestinal obstructions are pain, intermittent in character; nausea; vomiting; complete constipation; audible peristalsis; temperature normal; pulse normal at beginning but later will become more rapid. The white cell count is normal at first, later increases. X-ray shows gas in small intestines. The non-protein nitrogen content of the blood is increased and the sodium chloride content of the blood is diminished. There may be fecal vomiting, but we should not wait for fecal vomiting to begin treatment.

Acute Gallbladder Troubles—Cholecystitis

The patient is usually over thirty years of age. There may be a history of typhoid fever in the past, attacks of colic in the upper right fourth of the abdomen, attacks of indigestion which are not relieved by food. There is pain and tenderness in the upper right fourth of the abdomen. There is nausea and vomiting. There may be some jaundice. The temperature will be somewhat elevated with a moderate increase not so high in gallbladder trouble as in appendicitis, and the pain and tenderness are higher in the abdomen than in appendicitis. The respiration is somewhat embarrassed on the right side. There will likely be some bile pigment in the urine.

---

*Prepared for presentation before the Section on Surgery at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 12, 1937.

Acute Enterocolitis

Acute enterocolitis presents the symptoms of acute colicy pain with active peristalsis. This pain is a general abdominal pain. There is thirst and diarrhea. The abdomen is tender but there is usually no marked rigidity. The tenderness is usually not localized to any certain position.

Acute Diverticulitis

This is one of the rare acute conditions of the abdomen. A diverticulum is a pouch or sack leading off 'from a main tube or cavity. When this becomes infected it is called a diverticulitis. This may become gangrenous and cause death unless the patient is operated upon. The symptoms are very much like appendicitis. Operation is indicated. Often the diagnosis is not made until getting into the abdomen.

Acute Inflammation of the Tubes and Ovaries

There will likely be a history of labor, abortion, use of instruments to produce abortion, gonorrhea. The onset of acute inflammation of the tubes and ovaries is marked by pain in the lower abdomen. There will be a vaginal discharge with tenderness of the cervix and uterus by manual examination.

Acute Pancreatitis

The patient is usually over forty years of age. The patient may give a history of indigestion and attacks of pain in the upper abdomen. The attack begins with an agonizing pain. There is shock. The patient is in great distress. The attack resembles an acute ruptured ulcer. The pain is in the upper abdomen in the center and to the left. The pain may extend backward toward the left shoulder. There is rigidity in the upper left part of the abdomen. Diagnosis of pancreatitis is often not made until the patient is operated upon. There will likely be vomiting and cynanosis with grayish spots under the skin. There is usually constipation. There may be fat in the stools. The white cell count is increased in pancreatitis. The death rate is very high in acute pancreatitis, but operation offers a chance for recovery. Most of the patients die. When in doubt it is best to operate.

Ruptured Extra-Uterine Pregnancy

There is sometimes a history of symptoms of pregnancy such as nausea, enlargement of the breasts, suppression of the menstrual period or irregular bleeding. The pain is largely in the lower part of the abdomen. Manual examination reveals softening of the cervix and a mass may be felt outside the uterus. There is sometimes jaundice and anemia.

Acute Pyelitis

Acute pyelitis (inflamed pelvis of the kidney) often begins with chills and fever. There is pain in the lower abdomen, right or left, depending on which kidney is affected. There is also tenderness over the affected kidney. The pain may radiate downward toward the bladder. There is tenderness in the lower abdomen and if the pyelitis is in the right kidney the disease very much resembles appendicitis. The urine may contain white cells, red cells, and pus cells. In some instances it is well to make a cystoscopic examination.

Abscess of Liver

There may be a history of amebic dysentery. endocarditis, pyemia, osteomyelitis, gallbladder trouble, peptic ulcer, hemorrhoids, diverticulitis, empyema, general septicaemia, or injury. Symptoms are intermittent fever, chills, pain and tenderness in the region of the liver, and tenderness in the upper right fourth of the abdomen. X-ray may show diaphragm is elevated and liver enlarged. There may be jaundice and light colored stools. There is pain in the back. The white cell count is increased.

Acute Abdominal Allergy

This is a condition of unusual susceptibility to a food or a substance. There may be a history of nettle-rash, asthma, or pain in the abdomen after eating certain foods. There is a severe abdominal pain, usually accompanied by fever, nausea, and vomiting. There is not a great deal of rigidity and usually not extreme tenderness. The skin test is not reliable in the diagnosis. We should try the hypodermic injection of adrenalin chloride. Osler warns us against unnecessary surgery in allergic conditions of the abdomen. We may try the patient on different articles of food one at a time in order to test his susceptibility to different foods.

There are several extra-abdominal conditions which may cause pain in the abdomen. One is pneumonia. In pneumonia there will be an increase of the respiratory rate in proportion to the pulse rate. There will likely be a cough with bronchial breathing, or bronchovesicular breathing. There may be crepitant or subcrepitant rales. The white cell count will be high, 20,000 or more.

There should be a careful examination of the heart. Certain heart conditions may cause pain in the upper abdomen.

Diseases of the genito-urinary tract may produce pain in the abdomen. Some of these are a twist of the kidney pedicle, stone in the kidney or ureter, acute inflammation of the prostate gland, acute seminal vesculitis, and injuries to the kidneys, ureters, or bladder. A stone in the ureter may appear to be appendicitis. In case of stone there will likely be blood cells in the urine, though this is not always the case. The x-ray may be of great benefit in the diagnosis of diseases and injuries of the kidneys, ureters, and bladder. Often it is best to call in the urologist and secure his advice.

Locomotor ataxia furnishes symptoms which might cause the unwise operation on appendix, stomach, or prostate gland. Look for the general symptoms of tabes, the pupil which reacts to distance but not to light, the absence of knee reflex, the swaying of the body while standing with eyes shut, difficulty of walking in dark, girdle pain, Wassermann positive.

Lead poisoning may cause pain in the abdomen. This should especially be looked for in persons who are painters by occupation. Lead poisoning has resulted from the use of toilet powders and other toilet preparations. There will be the blue line of the gums. There may be general weakness, loss of appetite, anemia.

We should take a careful past history, a careful present history of the symptoms in the order in which they came. We should make a careful examination of the chest, the heart, the abdomen, the extremities. Look for the exact location of the pain, the location of the rigidity. See if there is any tympany, masses, or tumor, look for visible peristalsis. Listen for audible peristalsis. Make a vaginal examination in women. Examine for strangulated hernia. Make a rectal examination.

There should also be a careful laboratory examination of the blood and urine.

Every abdominal pain should be considered very dangerous until proved otherwise. Every patient with acute pain in the abdomen, whether caused by disease or injury, deserves careful watching and consultation.

It is very important that some decision should be made early as to whether to operate or not to operate. In a great many instances this decision should be made during the first three hours. Sometimes the appendix will rupture in four hours. In cases of obstruction it is best to get into the abdomen within two or three hours. This is also true in perforations of the abdominal organs.

We should not wait for shock or rapid pulse to make a diagnosis in acute conditions of the abdomen. Shock, except when associated with hemorrhage, is not often an early sign. Shock usually means overwhelming toxaemia. We should always be free to call in consultation. Often two or three heads are better than one. A useless trip to the hospital is better than one which is too late.

Do not give a purgative. Pain points towards the organ affected. A fast pulse means danger. Rigidity points to trouble in the organ beneath.

In preparing this paper I made use of a great deal of literature. It is my purpose now to give due credit to Dr. Moynihan, of England; Dr. McGehee, of Memphis; Dr. Barney, of Kansas City; Dr. Parsons, of Vicksburg; Dr. Graham, of St. Louis.

Here and There in the Upper Air Passages*

E. LeROY WILKINS, M.D.
CLARKSDALE, MISS.

In bringing this paper, I do it with no hope of giving you something new, but rather of rehashing some of the older and newer things concerning abnormal conditions here and there in the upper air passages. I shall not take up the embryology, anatomy, physiology, and so forth, and shall not go into detail to any great extent.

As we take up the nose, let us remember its general inside shape, that of an upright triangle, with its turbinates to reduce the size. particularly the upper part, and to "air-condition" for our lungs, heating and moistening the air. Present day air-conditioning of houses and office buildings, to say nothing of factories and workshops, will do much in the next few years to reduce the frequency of ills in the air passages and, naturally, many other ills to which the flesh is heir.

The membranes of the nose are rather delicate and vascular in their structure, being more or less easily influenced by heat and cold, moist and dry air. The vibrissae or normal growth of hair within the outer portion of the nasal passages acts as a filter for the larger particles which are air-borne, but not the finer particles which might be very irritating, nor to the bacteria and germs in general which might enter. Fortunately, the mucus secreted within the nose has some bacteriostatic properties and thus gives us some protection.

What has been said of the nose is more or less true in all portions of the air passages.

The common cold, which we have always with us, is fortunately not always severe, but its presence is fraught with many possibilities of danger. It causes a greater loss of time and efficiency than most all other diseases combined. Yet we know very little about it. The common cold is not prominent among the lower animals, but is more so in the apes and kindred animals who more closely approximate mankind. Particularly is this true in captivity and association with man.

The common cold may progress, either with or without treatment, until its damage may become quite far reaching, involving the sinuses, ears, mastoids and finally the meninges and brain. Its diagnosis is evident. Its treatment immensely varied. Prophylaxis is the best treatment, and prophylactic measures are almost as varied as treatment. Perhaps first place should go to avoidance of contact and sudden changes of temperature (external) and exposure. Yet many persons are seen with colds with no known contact, and others with much sudden changing of temperature are not affected, such as those who work in and out of cold storage rooms many times a day. (I know of one such.) Vaccines are of value but were discussed before.

I believe that a large percentage of colds may be aborted at outset by the use of mild antiseptics such as metaphen, neo silvol, argyrol, merthiolate, and so forth, either with or without ephedrine. The ephedrine is to be used with those cases where there is turgesence and marked congestion of the membranes, more concretely, when there is not full and free air passage. It is probably true that the causative agent of colds is to some extent anaerobic, though we feel that it can be airborne. We do know that in many instances, when colds are present, and are so for some time, and there is a blocking of the air passages, we are much more likely to have infections in the sinuses as result of lowering resistance of the tissues and much more destruction and damage. Perhaps this is partly due to the preparation of the field for the incidental infection by other germs or causative agencies. Certainly it is true in many cases of otitis media that they clear very readily with a large, free opening of the tympanic membrane and not so well with the smaller opening, though it affords sufficient drainage to allow the tympanic membrane to remain in normal position.

Some authors claim that the sinuses are involved in every common cold or rhinitis, just as others do regarding mastoids in otitis media.

The question of "sinuses" has become almost equal to that of "malaria." It has been much over-stressed by the profession as well as the laity. No one has a "bad cold" any more. It is either a "sinus cold," "sinus trouble," or just plain "sinuses." This has provided a fertile field for many rhinologists, far in excess of the "cold". Fortunately, the era of great amounts of nasal surgery has largely passed. Only a few are left who operate, then treat. I have stated before, and I do again, that one of the most pitiful types of cases with which I have to deal is that of the "super-operated nose." Thank God, we are seeing fewer and fewer of them.

---

*Read before the Coahoma County Medical Society, Clarksdale, March 10, 1937.

Many of the best writers of today are contending that very few cases of sinus involvement cannot be cured, both acute and chronic, without surgery, or at least with surgery of the most minor sort. Some maxillaries and a few frontals need irrigating, and most of this can be done through or in the region of the normal ostia. The same amount of treatment, as energetically applied, before operating as is usually necessary after operation, will save many operations and lose the hospital and doctor many operative fees.

Many patients come to me saying they have sinus trouble or "sinuses," giving most of the signs and symptoms thereof, who are entirely relieved within two to five days by treatment. The treatment ranges from the simple establishment of ventilation and normal drainage, with the resultant decongestion, particularly high up in the nose, which is accomplished by the use of mild solutions of ephedrine, either in normal salt solution or combined with the mild mercurials or silver soultions, to the more complicated packs (Dowling), irrigation-suction or the Proetz displacement. Occasionally, one or more irrigations of a maxillary, usually accomplished through, or in the area of, the natural ostium when no bone is penetrated are required. Rarely a frontal must be irrigated.

Treatments by the patient consist of some of the medicaments above mentioned used by the drop method, which I find much more effective than the spray, in either the Proetz or the later "lateral head back position." Hot fomentations or, where available, the infra-red heat, or occasionally just plain frosted globe light (the old carbon filament was much better for the purpose) should be used. There should be the usual attention to diet and elimination, and aspirin or empirin compound may be used for relief of pain when severe. Sometimes codeine is incorporated with the aspirin. There should be rest in bed, if possible to obtain it.

I have spent quite a few pennies, at from $1.50 to $2.50 per, for specially made tubes for sinus drainage, only to let most of them deteriorate beyond use in my cabinet. The cases that *have to have* the tubes usually go elsewhere. I find that the usual small rubber tubing, if properly placed and anchored, serves as well as the self-retaining type, is easier to remove and probably causes less irritation.

Thus briefly for the nasal passages:

The nasopharynx, lying as it does, between the nose and pharynx, commonly called the throat, is frequently sympathetically or by continuity the victim of the ills of both. A chronically wet or inflamed nose is usually accompanied by a nasopharyngitis. It most often reacts to the nasal treatment as the solutions drip or flow back over its tissues which are very similar to those of the nose, as well as of the pharynx.

It is not infrequent to find a definite pus sinus in the area of Luschka's tonsil, or adenoid. I believe this to be "a frequently overlooked focus of infection" in adults. I read a paper on the subject, which is sometimes called Thornwaldt's disease, some dozen or so years ago before the State Medical Association. This, of course, if present must be eliminated. Otherwise the treatment in this area would be much the same as for the nose or the pharynx, which ever the case might be. The fosse of Rosenmuller are possible sites of trouble, and can be seen with a mirror or nasopharyngoscope.

The pharynx is also akin to the nose in the structure of its membranes, and heir to the same troubles, and, those of the tonsils, to say nothing of many ills of its own. Frequently, it is in this location that we first see the streptococcic infections which invade these areas, diphtheria, and so forth. The infections here may be mild or extremely severe. Redness alone may not be a criteria as to the discomfort or systemic effects of the condition. An intensely inflamed pharynx may not be noticed by the patient as a local condition, and a mildly red one may be intensely uncomfortable.

It seems I have seen more of this latter type during the last few years than before. I have thought that the use of natural gas for heating and cooking might be a cause, but I find some of them in those who do not have gas, who live in the country. Also, it is fairly prevalent in seasons when little gas is used. particularly in the fall. In these cases the membranes are never so red as the discomfort and frequently systemic reactions would indicate. Often there is only a slight reddening of the "lateral rolls," and little else to see. There is, however, usually a peculiar coloring of the posterior wall, which may be masked by a coating of tenacious mucus, and when one does see it often, it is fairly easy to recognize, though it is somewhat like the coloring of the anterior tonsillar pillars. It is hard to differentiate in some cases. In these cases, I find that I do not get results from treatment unless this coating is removed, either by swabbing or dissolving by much gargling or irrigation. In swabbing, it takes definite pressure to remove it. I find that iodine on a swab does not help much, while as a content of a hot gargle, it is of benefit. I use the tincture of merthiolate, perhaps most, tincture, or alcoholic solution of mercurochrome, mercressin (I understand it is quite similar and effective), and cresatin (meta-cresylacetate). I believe it hard to surpass hot salt or salt and soda gargles, or better, irrigations. To be effective these must be used not too strong, and used hot, frequently, and in fair quantities. Two or three times a day is of little value. Aspirin, thantis lozenges, and sucrets dissolved on tongue or as a powder, offer some relief from discomfort, if they do not by their astringent or bacteriacidal action aid in limiting the disease. I have not found silver nitrate of much value.

This condition is, as indicated above, much more prevalent in the fall, winter, and spring, and provides a considerable amount of the laryngologist's practice in these seasons.

The germ incidence in those that I have had examined and cultured is "mixed." The term applied is "red throats," "flu throat," "pink throat," "cold throat," "strep throat," and so forth. Again, I am sure that I have seen and treated much more of this condition in the last half dozen years than before that time. It is recurrent and especially so if not treated till fully recovered. The same patient may have several attacks, or may have it continuously with slight remissions. It is almost as common and severe in those who have been tonsillectomized as those who have not, but those with tonsils frequently get tonsil involvement, not true tonsillitis, as well. This is particularly so if the course is long or untreated.

The vaccines, bacterins, and so forth have not been of great help. Treatments as above, with supportive, dietetic care, vitamin intake, fresh air and rest, seem all that can be done.

I referred to the tonsils and shall pause here only to mention that in their examination, particularly in adults, a negative diagnosis should not be made until the "tonsil node glands" have been palpated, or searched for, the presence of the "chronic crescent" on the anterior pillars, at about the line of attachment, not the edge, with the tonsil, to find whether there be pus and detritus deep in the tonsil. Cheesy masses alone do not always indicate possible foci of infection; however, infection is very frequent when there is much of this material. This you will find by proper pressure or use of suction cup. There is also creamy pus deeper in the tonsil.

As the title indicates, this paper is not exhaustive, but rather here and there and mostly there for there isn't much here. If I have raised any questions which may provoke discussion or that I may be able to answer, or are unanswerable, we may possibly benefit by these latter, and anyway, I have taken up the necessary and allotted time.

403 McWilliams Bldg.

MISSISSIPPI STATE MEDICAL ASSOCIATION

Organized 1867

OFFICERS

President	W. L. Little, M.D., Wesson
President-Elect	Joseph E. Green, M.D., Laurel
Vice-Presidents	F. S. Hill, M.D., Grenada Lawrence W. Long, M.D., Jackson R. F. Ratcliff, M.D., Lucedale
Historian	Leon S. Lippincott, M.D., Vicksburg
Speaker	J. P. Wall, M.D., Jackson
Secretary	T. M. Dye, M.D., Clarksdale
Treasurer	E. LeRoy Wilkins, M.D., Clarksdale

COUNCIL

First District	J. W. Lucas, M.D., Moorhead
Second District	L. L. Minor, M.D., Rt. 4, Memphis, Tenn.
Third District	R. B. Caldwell, M.D., Baldwyn
Fourth District	T. J. Brown, M.D., Grenada
Fifth District	W. H. Watson, M.D., Brandon
Sixth District	H. Lowry Rush, M.D., Meridian
Seventh District	J. Gould Gardner, M.D., Columbia
Eighth District	W. H. Frizell, M.D., Brookhaven
Ninth District	D. J. Williams, M.D., Gulfport

COMMITTEES

Constitution and By-Laws: W. H. Frizell, M.D., Brookhaven; J. Rice Williams, M.D., Houston; W. W. Crawford, M.D., Hattiesburg.

Budget and Finance: J. B. Howell, M.D., Canton; B. S. Guyton, M.D., Oxford; D. C. Montgomery, M.D., Greenville.

Public Policy and Legislation: W. H. Anderson, M.D., Booneville; F. J. Underwood, M.D., Jackson; Henry Boswell, M.D., Sanatorium.

Publication: Leon S. Lippincott, M.D., Vicksburg; D. W. Jones, M.D., Jackson; G. S. Bryan, M.D., Amory.

Program: T. M. Dye, M.D., Clarksdale.

Isolation Hospitals: H. F. Garrison, M.D., Jackson; J. Gould Gardner, M.D., Columbia; H. C. Ricks, M.D., Jackson; W. H. Anderson, M.D., Booneville; John Darrington, M.D., Yazoo City.

CHAIRMAN OF SECTIONS

Medicine	L. J. Clark, M.D., Vicksburg
Surgery	J. Gould Gardner, M.D., Columbia
Hygiene and Public Health	H. C. Ricks, M.D., Jackson
Eye, Ear, Nose and Throat	Van Dye Hagaman, Jackson

ADVISORY TO WOMAN'S AUXILIARY

W. L. Little, M.D.,	Wesson	Henry Boswell, M.D.	Sanatorium
Joseph E. Green, M.D.,	Laurel	T. M. Dye, M.D.	Clarksdale
T. J. Brown, M.D.	Grenada		

Mississippi State Medical Association

Leon S. Lippincott, M.D., ...Editor
D. W. Jones, M.D., ...Associate Editor
G. S. Bryan, M.D., ...Associate Editor

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

EDITORIALS

FOR THOUGHTFUL CONSIDERATION

In the August 7 number of the Journal of the American Medical Association is an editorial on the "Federal Regimentation of Physicians and Hospitals." If you did not see it, you should get it out and read it.

Senator J. Hamilton Lewis, of Illinois, introduced in the Senate, July 28, a joint resolution (S.J.Res.188), "To provide medical aid for the needy and the striken with illness who are unable because of poverty to provide treatment and hospitalization; also to establish all licensed medical practitioners as civil officers of National Government."

The resolution, it is stated, would in effect relieve the states of all responsibility and expense for the medical and hospital care of the indigent sick and injured and would bring the medical profession and all hospitals under federal control so far as might be necessary for the purposes of medical and hospital relief. It proposes to organize the medical profession and the hospitals of the United States to care for and treat, at the expense of the federal government and in accordance with rules and regulations promulgated by the Social Security Board, all infirm, sick and destitute persons in need of care and treatment and unable to provide it.

It is proposed that for the purposes set forth every physcian who practices medicine in the United States be a civil officer of the United States government. This it appears, in effect, means that every such physician is to be drafted into a federal medical relief service whether he desires it or not, without regard to his citizenship, age, infirmity, education, training, or experience. His term of office apparently is to be for life, regardless of good or bad behavior. No provision is made for suspension or removal from office or for resignation.

It is proposed that there shall be free choice of physicians by patients and that any person in need of medical treatment and unable to pay for it, is to be given the power to demand treatment by any physician, and the physician is to be bound to respond. A physician would have authority to order for an impoverished patient, under his treatment and in need of hospital care, hospitalization by any hospital, and a hospital, upon receipt of such an order would have to receive and care for the patient in a manner best adapted for his recovery, so far as the facilities of the hospital permit.

Bills for medical and hospital services would be sent to the Social Security Board and would be paid if found by the board to be reasonable and just. There seems to be no provision for the adjustment of differences when the Social Security Board and the physician or hospital can not agree as to the reasonableness and justice of the amount charged.

Penalties are provided. Any physician and any hospital official or employee who refuses to render the service required is to be liable, if the resolution should become a law, to a fine of not more than $1,000, to imprisonment for not more than three months or both. Similar penalties are proposed for a physician or hospital official or employee who makes exorbitant charges, for any physician or hospital charging a patient anything in addition to the amount charged to the federal government for the same services, and for any person who, in order to obtain medical and hospital services at the government expense, falsely represents that he is destitute and unable to pay for medical treatment.

Think it over seriously and thoughtfully. Let's have some constructive discussions.

MILITARY SURGEONS

There are many former officers of the medical corps of the army and navy as well as many medical reserve officers in Mississippi who will be interested in the meeting of The Association of Military Surgeons of the United States, to be held in Los Angeles, California, October 14, 15, 16, 1937. The scientific program of the meeting, as announced by Lieut. Col. E. C. Moore, chairman of the Public Relations Committee follows:

Scientific Program

45th Annual Convention of the Association of

Military Surgeons of the United States, Ambassador Hotel, Los Angeles

First Scientific Meeting, Thursday, October 14, 1:30 P. M.

1. Capt. George A. Cottle, M.C., U. S. Navy. —"Fleet Medicine." Discussion to be opened by Capt. Lester L. Pratt, M.C., U. S. Navy,
2. Maj. J. S. Chase, M.C., U. S. Army. Ret. —"Eyes in Aviation."
3. Lt. Col. I. H. Jones, MED. RES. U. S. Army.—"Ears in Aviation." (Motion picture showing research).
4. Col. Charles Decker, U. S. Army (D.E.O.) RET.—"The Training of Medical Officers in A Major War Emergency."

Second Scientific Meeting, Friday, October 15, 10:00 A. M.

1. Capt. Leroy Lowman, MED. RES. U. S. Army. (Advisory Committee Warm Springs Foundation).—"Physiotherapy in the Next War." (Slides Discussion to be opened by 1st Lt. Harold Dewey Barnard, MED. RES. U. S. Army.
2. Lt. Comdr. Albert G. Bower, MC-V (S) U. S. N. R.—"Modern Typhoid Treatment." Discussion to be opened by Roy Fisk, M.D.
3. Capt. Lucius Johnson, M.C., U. S. Navy.— "Hospital Ships in the World War: Lessons to be Learned From Them." (Slides) Discussion to be opened by Capt. George Cottle, M. C., U. S. Navy.
4. Lt. Albert Wineland, MC-V (S) U.S.N.R. —"Anesthesia in Shock." Discussion to be opened by Eldon Tice, M.D.

First General Meeting—Thursday, October 14. Opening Session: 10:15 A. M.

Invocation.

Addresses of Welcome.

Response.

President's address. Rear Adm. P. S. Rossiter, Surgeon General of the Navy.

Second General Meeting, Saturday, October 16 Opening Session 10:00 A. M.

Guest Speaker: Col. Howard Naffziger, MED RES. U. S. Army.—"Surgical Treatment of Low Back Pain." (Slides).

Business Meeting of the Association

Third Scientific Meeting, Friday, October 15, 1:30 P. M.

1. Lt. A. R. Behnke, M.C., U. S. Navy.— "Submarine Medicine." (Slides).
2. Chairman's address: Lt. Comdr. Howard L. Updegraff, MC-V (S) U. S. N. R.—"Emergency Plastic Surgery." (Motion picture).
3. Comdr. C. V. Rault, D.C., U. S. Navy.— "The Blood Sedimentation Rate in Dental Infections." (Slides).
4. Comdr. Albert Soiland, MC-V (S) U. S. N. R. RET.—"The Medical Specialists Units, U. S. N. R."

DIRECTORY AND CALENDAR OF MEDICAL SOCIETIES

Information is not complete. Secretaries or societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers that direct their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-first Annual Session and Thirty-fifth Annual Session of the House of Delegates, Jackson, April 19, 20, 21.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p. m.

Amite County Medical Society: W. S. Stewart, Osyka, president; D. H. Thornhill, Crosby, secretary. Meets second Thursday, each month, with Wilkinson County Medical Society, Field Memorial Hospital, Centreville.

Central Medical Society: L. W. Long, Jackson, president; Gayden Ward, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m., except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. E. Powell, Charleston, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clark-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president, Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: I. W. Barrett, Clarksdale, president; N. C. Knight, Clarksdale, secretary. Meets second Wednesday, each month, Clarksdale Hospital, Clarksdale, 1:30 p. m.

Coast Counties Medical Society: R. G. Lander, Pascagoula.

Delta Medical Society: E. T. White, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

DeSoto County Medical Society: J. M. Wright, Hernando, president. L. L. Minor, Rt. 4, Memphis, secretary. Meets first Monday of

January, April, July, October, Hernando, 10 a. m.

East Mississippi Medical Society: T. G. Cleveland, Meridian, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: L. Costley, Meadville, secretary.

Hancock County Medical Society: D. H. Ward, Bay St. Louis, president; A. P. Smith, Bay St. Louis, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Wittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: G. C. Jarratt, Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday, each month, Mississippi State Charity Hospital Vicksburg, 7 p. m.

Jackson County Medical Society: W. J. Sutherland, Pascagoula, president; R. G. Lander, Pascagoula, secretary, Meets second Thursday of March, June, September, Pascagoula, 7 p. m.

Marshall County Medical Society: C. R. Senter, Byhalia, president; Herbert Phillips, Holly Springs, secretary. Meets second Thursday, each month, alternating between Byhalia and Holly Springs.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Newton County Medical Society: V. L. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: G. H. Wood, Batesville, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: L. L. McDougal, Booneville, president; A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September and December.

Pike County Medical Society: J. L. Bauer, McComb, president; Elise Rutledge, McComb, secretary. Meets first Thursday, each month, McComb, 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R. F. D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Stone County Medical Society: Earl W. Green, Wiggins, secretary. Meets with Harrison-Stone-Hancock Counties Medical Society.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday, each month, Senatobia.

Tri-County Medical Society: D. T. Langston, New Hebron, president; R. B. Zeller, Hazlehurst, secretary. Meets March, Copiah-Lincoln Junior College, Wesson; June, Walthal Hotel, Tylertown; September 14, Riverside Hotel, Monticello; December 14, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: B. F. Arnold, Bellefontaine, president; H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: F. M. Butler, Centreville, secretary. Meets with Amite County Medical Society, Centreville.

Winona District Medical Society: P. B. Brumby, Lexington, secretary.

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION: Ninth Annual Session, Jackson, April 18, 1938.

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary: First Friday, each month, 6:00 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital: Third Wednesday, each month, 7:30 p. m.

Charleston Hospital: First Thursday, each month, 7:00 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12:00 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p. m.

George C. Hixon Memorial Hospital: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium: Third Thursday, each month, 8:00 p. m.

Greenwood Leflore Hospital: First Thursday, each month, 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital: Second Thursday, each month, 7:00 p. m.

Houston Hospital: Fourth Friday, each month, 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p. m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p. m.

King's Daughters Hospital, Brookhaven:

First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 7:00 p. m.

King's Daughters Hospital , Yazoo City: First Monday, each month, 8:00 p. m.

Magee General Hospital: Twenty-fifth, each month, 6:00 p. m.

Mayes Hospital: First Monday, each month, 2:30 p. m.

McComb City Hospital: First Tuesday, each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday, each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Hospital: Second Thursday, each month.

Northeast Mississippi Hospital: First Monday, each month, 7:00 p. m.

Oktibbeha Hospital: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veteran's Hospital, Gulfport: Every Monday, Tuesday, Wednesday and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth, or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month, 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

STATE BOARD OF HEALTH

Dr. J. W. Dugger, Director of Industrial Hygiene and Factory Inspection, assisted by Miss Aileen Britton, public health nurse, is conducting an interesting physical examination program for factory employees in the state. To date, 307 employees in the Brookhaven Manufacturing Corporation, 201 at Crystal Springs Shirt Corporation, 490 at Reliance Manufacturing Company, and 161 at Pioneer Silk Mills, Hattiesburg, have been given this examination which consists of Wassermann and malaria tests, urinalysis, testing of heart, taking of blood pressure, examination of throat, and tuberculin test. Forty to forty-five per cent of the employees showed a positive reacion to the tuberculin test. Plans are under way for the examination and x-ray of positive reactors by a diagnostician from the State Sanatorium.

Follow-up letters were sent each person examined showing the results of the examination and requesting, where necessary, that he consult his family physician. This program has been given an enthusiastic response by factory managers.

On July 12, Dr. Felix J. Underwood, Dr. H. C. Ricks, and Mrs. Eva Moore Adams attended a meeting of the South Mississippi Medical Society in Laurel. In cooperation with city and county governing officials, county and state health workers, the physicians planned a program of syphilis control.

Dr. Underwood addressed the Northeast Mississippi Thirteen Counties Nursing Society in Houston, July 14, on the subject, "Child Health Balance Sheet."

Mr. Manuel Calderon, of Mexico, spent two weeks of July in observing the work of the Division of Sanitary Engineering. An employee of the Mexican Department of Public Health since 1922, Mr. Calderon was sent to the State Board of Health by the Rockefeller Foundation. He has now resumed his studies at Harvard Engineering School.

Mr. H. A. Kroeze, Director, Sanitary Engineering, has been sent by the Commonwealth Fund to study latest methods of sanitary engineering in Wisconsin, Minnesota, and Michigan. Before his return, Mr. Kroeze will also visit the City Health Department in Chicago.

During July the State Board of Health held a school of malaria instruction at the State Hygienic Laboratory for technicians, conducted by Miss Aimee Wilcox, of the National Institute of Health. The course consisted of lectures and demonstrations on the proper technique for taking and staining blood smears, the various forms and types of malaria parasites, and the life cycle of the parasites in man and mosquito. Open to technicians generally, the course was required of all public health laboratory technicians. Attendance totaled fifty including a technician from New

Mexico and a few physicians.

This course of training will facilitate malaria diagnosis, allow physicians to give more intelligent treatment in malignant malaria, and result in a lower mortality from this disease.

Probably the best available work on the parasites of malaria is a chapter from "Practice of Medicine in the Tropics," by Byam and Archibald. The Division of Malaria Control furnished mimeographed copies of this chapter to all technicians who attended its school of instruction in July and will fill requests from other technicians in the state.

Mr. Joseph Hysen Alli, who is to become Director of the Epidemiological Division of the State Laboratories in Tirana, Albania, is spending a period of observation and study in the State Hygienic Laboratory. A naturalized American, Mr. Alli was born in Albania. has been an instructor at the University of Michian and is at present a candidate for the degree of Doctor of Public Health in Laboratory Medicine there.

A temporary poliomyelitis clinic has been established on the old asylum grounds in Jackson through cooperative efforts of the State Board of Health, Crippled Children's Service, State Department of Education, and Charity Hospital. The purpose of the clinic is to render early corrective treatment to recently paralyzed victims of poliomyelitis. All admissions to the clinic are made through Mrs. J. F. McDougal, State Supervisor, Crippled Children's Service. Before a patient is brought to the clinic his physician is required to notify Mrs. McDougal by letter or telephone. Under the supervision of Miss Elise Smith, registered nurse, work of the clinic is already showing progress.

Dr. Edward G. Huber, of Harvard School of Public Health, spent several days in Mississippi studying public health administration. After observation in the State Hygienic Laboratory and the Division of County Health Work and Epidemiology, he visited the Lauderdale and Warren County Health Departments.

The radio program for July consisted of varied and interesting broadcasts. On July 3, Dr. R. N. Whitfield, Director, Vital Statistics, talked on the timely subject, "Safety First on the Fourth;" Dr. Henry Boswell, Superintendent, State Tuberculosis Sanatorium, spoke on "Your State Institution;" Dr. H. C. Ricks, Director, County Health Work and Epidemiology, gave "Some Observations on Poliomyelitis;" Dr. Mabel Kemmerer, well-known psychologist, discussed "Health-Mindedness;" and Mrs. Frank Cannon, President Maternity Center, urged "Health Protection for Mothers."

Jackson, Felix J. Underwood,
Aug. 5, 1937 Executive Officer

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

A regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, August 10. After a supper served at 7 p. m., and the reading of the minutes of the last meeting, the following papers and discussions on the subject of Public Health, Dr. F. Michael Smith, Vicksburg, chairman of the committee, were presented:

1. Progress In The Control of Tuberculosis and the Good We May Expect to Reach.—Dr. Henry Boswell, Sanatorium.

Discussed by Drs. F. Michael Smith and L. S. Lippincott. Dr. Boswell closed.

2. What We Know and What We Do Not Know About Poliomyelitis.—Dr. W. E. Noblin, Jackson.

Discussed by Drs. H. F. Garrison, Jr., G. C. Jarratt, W. H. Scudder, F. M. Smith, and John J. Killeffer. Dr. Noblin closed.

3. Typhus—A Case Report.—Dr. S. W. Johnston, Vicksburg.

4. Case Report—Death Following the Use of Sulphanilamide in Gonorrhea.—Dr. A. J. Messina.

The Society adopted resolutions urging the isolation of dogs and other animals suspected of being rabid, the examination of heads of such animals after death, and the consulting of physicians by persons bitten.

Dr. Isadore Dyer, Vicksburg, was elected to membership.

Dr. N. B. Lewis presented the reports of the out-patient clinic conducted at the Mississippi State Hospital by this society for the month of July. The report showed 1276 patient visits.

The next meeting of the society will be held Tuesday, September 14, at the Mississippi State Charity Hospital.

NORTH MISSISSIPPI MEDICAL SOCIETY

The regular quarterly meeting of the North Mississippi Medical Society was held at Holly Springs, Wednesday, July 28. The program as announced by the secretary, Dr. W. H. Little, Oxford, was as follows:

5:30 P. M.—*Liberty Theater*

Motion Picture—"Caesarian Section," by

Courtesy of Dr. DeLee, Chicago, Illinois.

6:30—*Stafford's Cafe*

1. Invocation
2. Dinner
3. Minutes of Preceding Meeting and Other Business
4. "The Etiology, Pathology and Diagnosis of Infantile Paralysis."—Dr. Willis C. Campbell, Memphis, Tenn. General Discussion.
5. "The Orthopaedic Treatment of Poliomyelitis."—Dr. Willis C. Campbell, Memphis, Tenn. General Discussion.
6. "Emergency Treatment and Transportation of Fractures."—Dr. Hugh Smith, Memphis, Tenn. General Discussion.

Dr. G. H. Wood, President, Batesville, presided.

TRI-COUNTY MEDICAL SOCIETY

Hazlehurst and Copiah County lost one of her most outstanding physicians July 18, when Dr. E. H. DeBerry died suddenly while attending a woman in childbirth. He had just completed a difficult forceps delivery of the head and shoulders when he fell over dead. Death occurred at 7:30 p. m. He had been in constant attendance since morning and the day was unusually hot.

On July 23, Dr. C. R. McKee, partner of Dr. DeBerry, formed a partnership with Dr. J. G. Blaine. Dr. Blaine graduated from Tulane two years ago, since which time he has been with the Marine Hospitals.

Your correspondent was recently ill with an infected foot, and coincidentally, hiccups. The hiccups lasted for nine days. Was in the hospital five days during which time was "stuck" 35 times, on account of collecting specimens, drips, medication, etc. Henceforth, I trust that I may always be at the giving rather than the receiving end of the needle.

September 14 we meet at Monticello. Dr. Tom Conn always sees to it that fried fish are abundantly present on the menu.

Hazlehurst, R. B. Zeller,
Aug. 10, 1937. Secretary.

AMITE COUNTY

Dr. Harrison Butler, of Liberty, has been spending a while on the Gulf Coast—fishing and resting in Biloxi.

Miss Sybil Lea, daughter of Dr. and Mrs. V. A. Lee of Gloster, who is training in Touro Infirmary in New Orleans, has been spending her vacation with the family in Gloster.

Amite County's health officer, Dr. C. W. Stewart, and Mrs. Stewart, just returned from a two weeks' vacation spent in Washington, D. C., visiting their son and daughter-in-law, Mr. and Mrs. Kenneth Stewart. While gone, they visited in New York, Baltimore, Newark, and other points of interest. Ione, the daughter, did not return with the doctor but is still in Washington with her brother.

Dr. W. R. Brumfield, of Gloster, Amite County, able representative, has been sick for the past month. At this writing he is much improved.

The regular monthly meeting of the Amite and Wilkerson county doctors will be held at Field's Hospital in Centreville, Thursday, August 5, at seven o'clock.

Osyka, C. W. Stewart,
July 31, 1937.

DESOTO COUNTY

Quietness prevails over the northwestern sector of the state; the doctors are busy and cheerful tho the weather has been somewhat warm.

All the physicians of the county are married except Dr. A. V. Richmond, Lake Cormorant. A very eligible bachelor he is, however, much interested in his neice and nephews. All the married ones have children except Dr. H. M. Wadsworth, Hernando.

Drs. O. C. Brewer, A. L. Emerson, W. D. Casey and J. A. Rhodes have grand-children.

Dr. A. L. Emerson, the oldest physician in the county, is the father of the youngest, Dr. C. W. Emerson; they are partners and the latter succeeded the former recently as county health officer. Mrs. C. W. Emerson's father is Dr. Lon W. Dotson, West Point.

Drs. Nicholas Gotten and Carroll C. Turner have purchased the Cocke Sanitarium in the eastern suburbs of Memphis. Dr. Gotten is a neuro-surgeon and Dr. Turner is a psychiatrist. They will continue their city offices. The plant will be enlarged and equipped with the latest apparatus for an instution of this kind.

Memphis, Tenn., L. L. Minor,
Route 4, Aug. 12, 1937 County Editor.

JACKSON COUNTY

Dr. R. C. Eley has just returned from a two weeks' vacation in the Carolinas. Part of this time was spent in the Pediatric Seminar at Saluda.

Dr. R. G. Lander visited for several days in San Antonio and other Texas points.

Dr. W. B. Buckner has opened an office in Moss Point for the practice of medicine. Dr. Buckner was formerly attached to the C. C. C. Camp near Mendenhall and more recently had a temporary assignment at the State Charity Hospital in Jackson.

Pascagoula, R. G. Lander,
Aug. 10, 1937. County Editor.

LAUDERDALE COUNTY

George Lamar Arrington, Jr., arrived July 20th.

LEFLORE COUNTY

At the staff meeting of the Greenwood Leflore Hospital, July 1, Drs. S. L. Brister, Jr., and W. E. Denman discussed the cases of deaths that occurred in the hospital during the month. Sixteen were present.

Dr. and Mrs. J. P. Bates and granddaughter, Margaret Cunningham, spent their vacation in Montgomery, Ala.

Dr. Jesse R. Hightower, Itta Bena, was married to Miss Frances Heidler, of Mt. Vernon, Ill., July 2. Dr. L. H. Hightower, his father, and sisters, Misses Sara, Louise and Katie Lou, attended the wedding.

Dr. and Mrs. R. D. Dickins, Monticello, Ark., visited in the home of their parents, Dr. and Mrs. W. B. Dickins, Sunday, July 4.

Dr. L. B. Otken attended the American Legion Convention in Jackson, Monday, July 5.

Dr. James W. Cox, Columbus, was a visitor to Greenwood July 6.

Dr. W. L. Ervin, Inverness, visited Greenwood July 7.

Dr. and Mrs. W. E. Denman went to Memphis with their son, W. E. Jr., who will finish his last year in medicine at this term.

Among the many doctors visiting in Greenwood during the month were Drs. E. W. Holmes, Winona; J. E. McDill, Jackson; Hudspeth, Doddsville.

Dr. Ruth Dean is attending the Southern Pediatric Seminar at Saluda, N. C.

Dr. O. P. Myers, who has recently located at Indianola, was a visitor July 29.

Dr. E. N. Murphey, Macon, is visiting his son, Mr. C. H. Murphy, at Itta Bena.

Dr. and Mrs. B. B. Harper, Itta Bena, were passengers on the "Know Mississippi Better Train," which left Jackson July 19, for Mexico and the west coast

Dr. G. Y. Gillespie, Jr., is spending his vacation in Florida. He expects to return about August 8.

Mrs. Lizzie George Henderson, widow of Dr. T. R. Henderson, one of our most prominent physicians and citizens, died at her home here Sunday, August 1, and was buried from the First Baptist Church at 5 p. m., August 2. Interment at Odd Fellows Cemetery, Greenwood. Among the many gifts to all classes of poor and needy, and all the churches in the city, was her gift to the Greenwood Leflore Hospital. She furnished a room in honor of Dr. Henderson, and also furnished the equipment for the new operating room.

Greenwood, W. B. Dickins,
August 2, 1937 County Editor.

NOXUBEE COUNTY

Dr. S. F. Hill, Macon, has been on a vacation for the past ten days or two weeks during which time he took a trip through the west.

Dr. E. M. Murphy will leave on his vacation in a few days.

The new building for the Macon Hospital is nearing completion and will have its formal opening August 19. This will be a twenty-five bed hospital and is an insulated brick building. It also includes modern operating rooms, laboratory, x-ray department, etc. The nurses home will also be completed by this time.

Macon, L. B. Morris,
August 4, 1937.

TALLAHATCHIE COUNTY

The many friends of Dr. J. W. Moody, Charleston, will regret to learn of the loss of his Charleston Hospital by fire recently. The hospital and equipment, including Dr. Moody's library and offices, were a complete loss and only partially covered by insurance.

The Charleston Hospital has been meeting a real need in Tallahatchie County and surrounding territory and there is a demand from the citizens that the hospital be rebuilt.

TATE COUNTY

The physicians of Tate, and a number from DeSoto and Panola counties enjoyed a course in pediatrics by Dr. Robert Strong of Tulane University from July 26 to 30. These lectures were interesting and instructive to all who took advantage of hearing Dr. Strong.

Since our last correspondence from Tate county John Sidney Eason, Jr., son of Dr. J. Sidney Eason, Coldwater, was killed in a wreck of truck and caterpillar on Highway 51. John Sidney was 24 years old, and one of the best loved young men in the county as shown by the expressions of love and sympathy shown by so large a number at the time of his death.

Dr. H. F. Byers and family have been enjoying an extensive vacation to different points of interest throughout the east and north.

Dr. and Mrs. H. L. Murphey, Arkabutla, have also been on an extensive vacation tour during the past few weeks.

Dr. Harold D. Freedman, former lieutenant at the C. C. C. Camp of this couny, has decided to locate permanently in Senatobia. We welcome Dr. Freedman to Tate county. We need such young men to locate among us.

We are sorry to report that Dr. Wm. R. Gilbert, Tyro, has not been in the best of health for some months past, and unable to look after his practice except to a limited extent. We hope that the doctor will soon be back to his normal health.

The board of supervisors failed to see that it was best to retain the county nurse, Miss Boone, who has been with us for some months past, and she was removed to Hazlehurst. Miss Boone did a lot of good work while here, and with her assistance we succeeded in doing more preventative vaccination and instruction than we have been able to do in any one year in the past. However, we did quite a large amount of vaccinations during 1936, and as a result there has not been a case of diphtheria reported for the past year that I remember at this time, and only one case of typhoid reported in the county for 1937 to date. The board still retains the sanitary inspector and he is doing quite a lot of wood work throughout the county. We hope to have the nurse back after October 1.

Tate County had its first pasteurizing milk plant to begin operation on Aug. 1. This plant is located at Fairground Dairy, operated by Jack Norfleet of Sanatobia. This plant will prove of great advantage to the people of that territory.

Coldwater, J. Sidney Eason,
Aug. 6, 1937 County Editor

WASHINGTON COUNTY

Mississippi and Washington County were represented at the meetings of the American Medical Association, June 7 to 11, by Dr. H. A. Gamble, who served as delegate and also presented a scientific exhibit illustrating the open-wound treatment of peritonitis secondary to appendicitis. Dr. E. T. White and Dr. J. A. Beals also attended the meeting.

Drs. J. B. Hirsch and O. H. Beck have started construction of their new office building in Greenville at the corner of Alexander and Shelby Street. The building is a one-story structure, comprising twenty-five rooms, and will have modern and ample equipment throughout. The cost will be about $10,000. Dr. J. W. Eubanks will continue his association with Drs. Hirsch and Beck.

Three new doctors have recently joined the medical fraternity of Washington County. They are Dr. James L. Salman, of Atlanta, who is associated with Dr. F. M. Acree; Dr. G. W. Peterson, of Louisville, Kentucky, who succeeds Dr. J. F. Lucas in obstetrics, and Dr. C. E. Roach of Milwaukee, Wisconsin, who succeeds Dr. R. E. Wilson in pediatrics at the clinic of Gamble Bros. and Montgomery.

Dr. T. B. Lewis, Greenville, who sustained a hip fracture several months ago, has recovered to the point where he can now dispense with crutches.

Dr. L. C. Davis has been confined to his home and the hospital for several weeks due to a troublesome series of complications following an operation for strangulated hernia. He is considered seriously but not dangerously ill.

Dr. F. M. Acree, Greenville, was painfully but not seriously injured in an automobile accident which occurred near Clarksdale, July 27. He was at the hospital in Clarksdale for a few days for treatment and observation.

The King's Daughters Hospital, of Greenville, has begun construction of a new nurses' home. This will be a modern, new building located on the hospital grounds. It will displace the former nurses' home which was formerly the King's Daughters Hospital, erected in 1904, and converted into a nurses' home in 1926 when the present hospital building was completed.

The new nurses' home will have 35 double rooms for student nurses, six rooms for resident members of the faculty of the school of nursing, besides class rooms, library, diet kitchen, laundry, and two large reception rooms. The new building will cost $85,000.

Greenville, J. A. Beals,
Aug. 3, 1937. County Editor.

WINSTON COUNTY

Drs. Kilpatrick and Hickman, of Noxapater, and Dr. Suttle, of Betheden, were in Louisville on business this week.

Dr. W. W. Hickman's son is in Rush's Infirmary at Meridian and is doing nicely after an appendicitis operation.

Dr. E. L. Richardson has been suffering with arthritis the last few days.

Several of the doctors from Louisville have been attending the course on pediatrics that is being held at Kosciusko.

Mr. and Mrs. Walton Owen and daughter,

Rosemary, of New Albany, are here visiting their parents, Dr. and Mrs. W. W. Parkes.

Hot weather is causing quite a lot of summer colds in this section.

Louisville, M. L. Montgomery,
Aug. 13, 197. County Editor.

Hospital Staff Transactions

HOUSTON HOSPITAL STAFF MEETING

The regular monthly staff meeting of the Houston Hospital was held in the lobby of the hospital Friday night, July 30, at 7:45 p.m.

The musical program of the evening was rendered by a clarinet quartette composed of Frank Wilson, John White, Wilford Doss, and Van Philpot, members of the Houston High School band. They were accompanied at the piano by Miss Gladys Alexander of Houston.

The first paper on the scientific program, "Significance of Some Respiratory Symptoms," was read by Dr. J. James, of Ackerman. This was a very interesting paper and was freely discussed by all the doctors present.

Dr. J. M. Hood, of Houlka, read the next paper, "Analgesia and Anesthesia in Rural Obstetrics." An enthusiastic discussion followed this paper in which all the doctors present took part.

The following doctors were present: Dr. J. James, Dr. Wesley James, Ackerman; Dr. J. M. Hood, Dr. W. C. Walker, Houlka; Dr. W. J. Aycock, Dr. Beacham, Dr. J. A. Hardin, Calhoun City; Dr. J. S. Edmondson, Dr. E. B. Young, Dr. O. B. Crocker, Vardaman; Dr. R. P. Donaldson, Dr. A. P. Dunavant, Pontotoc; Dr. B. J. Shaw, Slate Springs; Dr. R. C. Dent, Sweatman; Dr. R. D. Houston, Montpelier; Dr. Z. A. Dorsey, Troy; Dr. S. K. Gore, Dr. W. H. Ivey, Dr. G. G. Armstrong; and Dr. V. B. Philpot, Houston.

Houston, August 3, 1937.

VICKSBURG SANITARIUM

A regular monthly meeting of the Vicksburg Sanitarium was held Wednesday, August 11, and after a supper served at 6:30 p. m., was called to order by Dr. J. A. K. Birchett, Jr., with twelve members and two guests present. The program included:

Reports from the Records Department and Analysis of the Work of the Hospital.

Special Case Reports:

1. Carcinoma of Cervix-Uteri (Two Cases). —Dr. G. M. Street. Discussed by Dr. A. Street.
2. Carcinoma of the Rectum—Two-Stage Abdomino-Perineal Resection.—Dr. A. Street. Discussed by Drs. George Street and L. J. Clark.
3. Carcinoma of the Rectum.—Dr. J. A. K. Birchett, Jr. Discussed by Drs. A. Street and George Street.

Demonstration of Selected Radiographic Studies: Pulmonary Tuberculosis (Three Cases); Duodenal Ulcer; Hydronephrosis and Hydroureter.

Three Minute Reports of the Literature of the Month:

1. Dr. Leon S. Lippincott: Granuloma Due to Talcum Powder In Wound Following Operation.
2. Dr. S. W. Johnston: Comparison of Results of Serology Tests for Syphilis in State Laboratories.

The next meeting of the staff will be held Friday, September 10.

ABSTRACT: CARCINOMA OF THE RECTUM WITH TWO-STAGE ABDOMINO-PERINEAL RESECTION

A. Street, M.D.

Patient.—White female, age 48, married, two children. Admitted to Sanitarium May 24, 1937.

Chief Complaint.—Low abdominal discomfort. Frequent desire to defecate, and, on going to stool, instead of having a normal bowel movement, passed small quantities of mucus, frequently bloody. Has had some of this trouble for eight months. Six months ago had hemorrhoid operation for this complaint without relief. Very little loss of weight. Appetite has been poor, but food has caused no discomfort.

Previous History and Family History: Not remarkable.

Examination: Well developed and fairly nourished. Tongue was rather smooth from atrophy of papillae. Blood pressure: systolic, 115; diastolic, 70. General physical examination showed nothing remarkable. Urine examination showed nothing abnormal. Blood examinations: red, white, and differential counts were within normal range; blood Wassermann and other serologic examinations negative. Local examination: on doing the bimanual pelvic examination, there was a mass behind the uterus about the size and shape of a small orange. It was movable. Digital examination of the rectum showed nothing abnormal. Roentgenographic and fluoroscopic examination of the rectum and colon, after opaque enema, failed to show any evidence of abnormality. Proctoscopic exaamination: proctoscope was obstructed 15 centimeters from the anus. At this level, a cauliflower mass in the lumen of the rectum was visible. This mass bled on sponging. Biopsy was taken with the punch. Tissue examination, by Dr. Lippincott, showed adeno-carcinoma, grade II.

Patient was put on non-residue diet until June 2, when first-stage operation was done under gas ether anaesthesia, low median abdominal incision, excising an old laparotomy scar. Exploration of the liver showed it free of nodules. The gallbladder contained some small stones. Examination of the rectum showed the presence of a globular mass in the rectum about two inches in diameter, located just above the recto-uterine fold of the peritoneum. A stab wound was made in the left abdominal wall, and a clamp passed through it from without inward, and applied to the midportion of the sigmoid. Another clamp was applied distal to this and the sigmoid colon separation of the ends, and the end of the proximal segment was protected to prevent soiling, and drawn through the stab wound for the permanent colostomy, the clamp left on to anchor the bowel, and no sutures applied. The mesosigmoid was divided enough to allow wide separation of the ends, and the end of the distal segment was brought out in the suprapublic position, through the lower end of the laparotomy incision, and the wound closed around it, the clamp left on, and no sutures placed in the intestine.

This operation was well borne. On June 6, there was some abdominal distension, and a purse-string suture was passed around the stump of proximal gut, the clamp removed and a colon tube passed well into the lumen and tied there. This promptly relieved the distension and, with aid of occasional small warm water irrigations, the colostomy subsequently functioned well. Later on, the lower segment was irrigated daily with warm sterile water, in order to clean it as thoroughly as possible. On June 26, the laparotomy wound was re-opened and the growthbearing lower segment was mobolized in the usual way, well down to the perineum, and the peritoneum easily sewed over the mobilized bowel. Abdominal wound was then closed, the patient placed in the lateral position, and the resection completed by the perineal route. The perineal wound was lightly packed with sterile gauze. Following the operation, the patient was given a transfusion of 500 c.c. of citrated blood. Convalescence was quite uneventful. Highest postoperative temperature was 102.4°F., June 28. Packing was removed on the seventh day and partially replaced. All packing was omitted after the twelfth day. Patient was discharged on July 18, which was 22 days from the second operation. I heard from her one week ago, and she states that the perineal wound is entirely closed and that she is in excellent condition.

Dr. Lippincott reported examination of the surgical specimen as follows:

SURGICAL PATHOLOGY

Sigmoid colon and rectum (weight 300 grams) 12x1½ to 5-8 inch diameter. One end tied in gauze. Lower 3 inches dilated, filled with necrotic material. At 6 inches from lower end is annular growth, at inner portion, pink, necrotic, remainder, white, firm. Considerable fat. In fat are several lymph nodes 3-16 to 1-3x1-4x3-16 inch, dense, pink and white.

Microscopic: 1. Upper End.—Considerable chronic inflammatory, most marked submucous and outer coats. Some acute inflammatory submucous. Considerable passive congestion; interstitial blood. Edema.

2. Growth.—Adeno-carcinoma (grade II). Some mitotic figures. Apparently limited to mucosa and submucosa. Considerable chronic and acute inflammatory. Few small abscesses.

3. Lymph Nodes.—Chronic inflammatory. Hyperplasia; edema; slight interstitial blood.

DIAGNOSIS: Adeno-carcinoma (Grade II)
Proctitis, acute and chronic
Lymphadenitis, chronic, hyperplastic.

Abstract: CARCINOMA OF THE RECTUM

J. A. K. Birchett, Jr., M.D.

Patient.—Colored, female, age 30, school teacher.

Complaint.—Passage of blood from the rectum, intermittent diarrhea, and constipation.

History of Present Complaint.—She presented herself at the out-patient department May 3, 1937. Had first noticed blood in the bowel movement about six months before this time, and the last two months there has been an increased amount of blood associated with mucus. At times, marked constipation and, at others, diarrhea and straining at stool. Appetite has been good. No nausea or vomiting. No fever, no cough; has not been confined to bed. She only recently finished her school term and would have sought medical advice earlier, if it had not been for her position as school teacher. She thinks she has lost about twenty pounds of weight since the first of the year. There has been some abdominal pain, but that has been felt mostly in the act of defecation.

Family History.—No tuberculosis, no cancer. Has several sisters and brothers living and well. Father is dead of pneumonia, mother is living and well.

Physical Examination.—A small, fairly well-developed, but under-weight, colored female of thirty. General physical examination not remarkable except for an annular constriction of the rectum, which could be readily reached with the index finger. Uterus and adnexa normal. Laboratory examination showed Wasserman, Kahn, and Kline and Young tests positive (4-plus). Urine normal. Blood picture gave evidence of a marked anemia, 1,800,000 red cells, and hemoglobin of 30 per cent.

Procedure.—From the history and examination, a tentative diagnosis was made of malignancy of the rectum, with associated secondary anemia from the blood loss and cachexia. The patient was advised to become hospitalized so that we would be able to make a gastrointestinal study and to get a biopsy. On the second day after admission, patient was given dose of castor oil in the evening and the next morning was sent to the x-ray department for study of the colon and a report was returned as not diagnostic. The fluoroscopic report was as follows: barium enters and fills rectal bulb well; descending colon slightly segmented; remaining colon not remarkable. As the findings in the fluoroscopic study of the colon were not of any assistance in the diagnosis, it was necessary to do a proctoscopic examination in order to get a biopsy; therefore, May 7, a proctoscope was inserted and an annular ulcerated constriction was found approximately 3 inches from the anal outlet. Tissue was removed from the wall of the constriction, which was ulcerated, for examination. Dr. Lippincott's report on the tissue was adeno-carcinoma, grade II. As the rectum was movable, and the condition of the patient was fair, we decided, after discussing her condition with her, that it was worthwhile to do an abdominal exploratory procedure to determine whether the cancer was operable, and as to whether there were any metastases to the mesenteric glands or the liver. Therefore, May 8, in spite of the marked anemia of the patient and her general debility, a low mid-line incision was made under light gas ether anaesthesia, and a large hard mass was found in the middle portion of the rectum, just under the fold of the pelvic peritoneal reflexion, behind the uterus. This mass was freely movable; there was no evidence of any mesenteric glands and the liver was apparently without metastases. However. this slight procedure was quite shocking to the patient, and a low left inguinal colostomy was done, bringing out a loop of the descending colon, the bowel not being opened at this time. After glucose intravenously, and stimulation, patient was relieved of shock. A donor was then found and 500 c.c. of blood was administered. On the seventh day following the abdominal exploratory, the colon which had been brought out through the abdominal wall, was opened by a cautery incision. This immediately relieved some distension, and, from that time on, the colostomy functioned perfectly. The patient was quite slow in responding to building regime. She was given liver and iron and forced feedings to build up her strength in preparation for the second stage of the operation. Her condition was thou satisfactory to proceed and, June 29, approximately 26 days after the opening of the spur of bowel, an incision was made through the previous midline incision and the combined abdomino-perineal removal of the rectum and perianal region was accomplished. At this procedure, it was noted that the mass was larger and much more adherent to the posterior wall of the vagina and cervix but this was mostly due to inflammatory and a line of dissection was easily carried out without removing these structures. The abdominal cavity was drained through the upper incision and the pelvis and perianal region were loosely packed with gauze and not sutured. Bleeding was at a minimum throughout the procedure and the condition of the patient was fairly satisfactory considering her general condition and the amount of shock, associated with the procedure. A transfusion was administered, 500 c.c. of blood, June 30, the day following the operation. Her condition continued fairly satisfactory for a week. Then she began to lose ground and, July 11, another transfusion was given. The patient was able to take nourishment by mouth and had a fairly good appetite and digestion was good, the colostomy functioning from two to four times daily. The gauze pack was completely removed eight days after the operation and, because of much sloughing of tissue, hot permanganate solution was used to wash out the sacral cavity. This slough rapidly came away and the surface began to granulate. The abdominal wound was healed on the 14th day, except for a sinus at the lower end, from which purulent drainage was discharged, but this became less daily. By July 20, the patient began to develop evidence of cerebral disturbance, that is, coma, with irrational conversation. The bowels began to move 8 to 10 times daily, with much mucus, and some undigested food. There was evidence of an acute stomatitis. The patient had been getting liver by mouth and liver extract by hypodermic, which we thought was sufficient to prevent any possibility of a pellagric syndrome or other avitaminosis or deficiency disease. Therefore, the liver was increased in amount and vitamin B administered in the form of betatoxin. July 22 transfusion was given, 500 c.c. of blood being administered. The patient gradually went into a coma and, Aug. 6, expired.

Discussion.—We feel that this individual died because of the development of an intercurrent metabolic disorder, very probably pellagra, which had it's beginning earlier in the year, during the time when the patient became so debilitated and before admission to the hospital, and that the attending shock, associated with such a severe procedure as resection of the rectum, was of such degree that it unbalanced the metabolism to such an extent that the patient succumbed to this intercurrent disturbance. X-rays of the pelvis and lungs showed no metastases and the sepsis which attended the early post-operative state seemed to have cleared up sufficiently to give us well-healing wounds. There was no remarkable temperature curve, and, at no time, was there any evidence of any peritonitis sufficient to cause distension of ileus. The most common causes of death in this kind of condition are hemorrhage or shock attending hemorrhage at the time of surgical procedure, sepsis following infection of the peritoneum from the colon contents, and metastases of the malignant growth. We do not feel that this patient suffered any of these complications and died of an ananition or metabolic disturbance, which was activated by the development of the malignancy and the rather severe treatment attending an attempt to relieve her of his otherwise fatal disease.

In seeing this patient our first impression was the possibility of syphilis of the rectum, or a lesion of lymphogranuloma, or malignancy. These three possibilities were borne in mind and, although the serology was positive, the Frei test for lymphogranuloma was negative and, although the x-ray study of the colon did not give any positive evidence of malignancy, or even suggestion, the biopsy following a visual proctoscopy made the diagnosis.

HONOR ROLL

The following have contributed to this number of the news section of our Journal this month:

COUNTY EDITORS: Amite—C. W. Stewart; DeSoto—L. L. Minor; Jackson—R. C. Lander; Lauderdale—G. Lamar Arrington; Leflore—W. B. Dickins; Noxubee—L. B. Morris; Tallahatchie—J. W. Moody; Tate—J. Sidney Eason; Washington—J. A. Beals; Winston—M. L. Mongomery.—10.

SOCIETIES: Issaquena-Sharkey Warren Counties; North Mississippi, A. H. Little; Tri-County, R. B. Zeller.—3.

HOSPITALS: Houston Hospital; Vicksburg Sanitarium.—2.

OTHERS: Felix J. Underwood.

TOTAL—16.

THANK YOU.

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASSOCIATION

WOMAN'S AUXILIARY TO THE SOUTH MISSISSIPPI MEDICAL SOCIETY

Dr. and Mrs. W. W. Crawford and daughter, Helen, have returned from vacationing in Cashiers, N. C. They were joined there by the Hamilton Crawfords, of New Orleans. While there they were guests at High Hampton Inn.

Dr. and Mrs. C. C. Buchanan and children, H. D. and Mary Lou, have returned from Biloxi where they spent several weeks—occupying a cottage for their stay.

We are indeed sorry to learn of the death of wee Mary Earle, infant daughter of Dr. and Mrs. L. B. Hudson, Jr.

Dr. and Mrs. Blackwelder visited various points in Alabama and Georgia, spending several days in Atlanta.

Dr. and Mrs. C. C. Hightower and two children, Charges, Jr., and Elizabeth, are visiting in Washington, D. C. Charles Jr. will enter the University of Texas this fall for his secold year of study for the medical profession.

Dr. and Mrs. J. P. Culpepper and J. P., Jr. had a delightful visit with Mrs. Culpepper's sister in Tennessee.

Dr. and Mrs. Grady Cook have returned from New Orleans. Dr. Cook studied in the X-ray department of the graduate medical school of L. S. U. while there.

Dr. Joe McKinnon and Mrs. D. A. Vann, Jr., are expected on a visit to their parents, Dr. and Mrs. H. L. McKinnon. Dr. Joe has finished a two-year internship at Columbus, Ohio.

Dr. and Mrs. Nollie Felts will soon move into their new home they are building on eleventh ave.

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tenn.

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

ROBIN HARRIS
Eye, Ear, Nose and Throat
and Bronchoscopy
Lamar Life Building
Jackson, Mississippi

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 6-3288
899 Madison Ave. Memphis, Tenn.

JOHN W. RAGSDALE, M.D.
CHESTER D. ALLEN, M.D.
327 Medical Arts Bldg.
Memphis, Tenn.
Urology and Urological Surgery

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as applied in this field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Memphis, Tennessee
Phones: Off: 6-1923 Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Miss.

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Miss.

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WM. MILTON ADAMS, M.D.
Practice Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tenn.

HENRY G. HILL, M.D.
Clinic, 847 Madison Avenue
Memphis, Tennessee
Practice Limited,
Diseases and Injuries
Bone and Joints
Cripples and Deformities
Braces and
Orthopedic
Appliances

FRANK W. SMYTHE, M.D.
Practice limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-surgery
Physicians and Surgeons Bldg.
Memphis, Tenn.
Phones: Off: 6-3288 Res: 2-9645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tenn.

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tenn.

GILBERT J. LEVY, M.D.
Practice Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap, St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tenn.

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tenn.

DR. Wm. F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Miss.

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Bldg.
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy
Ionization for Hay Fever

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Miss.

T. E. WILSON, M.D.
Practice Limited to Internal Medicine
Office 522 Standard Life Building
Jackson, Miss.

ROBERT H. BRUMFIELD, M.D., F.A.C.S.
General Surgery and Urology
McComb, Miss.

DR. J. W. LIPSCOMB, JR.
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Miss.

LAWRENCE W. LONG, B.A., M.D., F.A.C.S.
410-412 Standard Life Bldg.
Jackson, Miss.
GENERAL SURGERY
Surgical Diseases of Children.

F. M. ACREE, M.D.
Greenville, Miss.

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

R. L. DONALD, M.D.
207-8 Miazza-Woods Bldg.
Meridian, Mississippi
Office Hours: 10 to 12 a. m.—3 to 5 p. m.

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians & Surgeons Bldg.
(899 Maddison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
and
Bronchoscopy
Princess Theatre Building
Columbus, Miss.

W. L. WILLIAMSON, M.D., F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

WM. T. BLACK, M.D., F.A.C.S.
Gynecology
Medical Arts Bldg.,
Memphis, Tenn.

DR. J. CASH KING
formerly at John Gaston Hospital
and University of Tennessee
announces the opening of his office
for the practice of RADIOLOGY
902 Madison Avenue
Memphis, Tennessee Telephone 6-7460

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham, Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg.), F.A.C.S.
Genitourinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

Walter W. Robinson, M.D.

Crisler Clinic

1291 Union Avenue

Memphis, Tenn.

Specializing in

PATHOLOGY

ROENTGEN

DIAGNOSIS and THERAPY

WADE CLINIC

Wade Building

Hot Springs National Park, Arkansas

H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS Clinical Pathology
MARJORIE WADE, Bacteriology

SHIELDS ABERNATHY, M.D., F.A.C.S.

HOWARD H. ASHBURY, M.D., Oncologist

CLINIC

For General Surgical and

Neoplastic Diseases

Complete Modern Radiological Equipment

1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING

I. G. Duncan, B.S., M.D., F.A.C.S.

J. S. Fleming, M.D.

GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION

Suite 1500-06 Commerce Title Bldg.

Memphis, Tenn.

DUANE CARR, M.D.

Diseases of the Chest

Endoscopy — Thoracic Surgery

Physicians and Surgeons Building

(Baptist Hospital Annex)

Memphis, Tennessee

Telephones: 8-3662; 2-3226; 2-2138

WRIGHT and FERGUSON

Funeral Home

Jackson, Mississippi

DOUGLAS D. BAUGH, M.D.

— CLINIC —

Diagnosis — Internal Medicine

First National Bank Building

Columbus, Miss.

Founded in 1879

Allison's Wells

HOTEL - SANATORIUM

Famous through the years for the wonderful properties of its mineral water and as a health resort, Allison's Wells, under the direction of Dr. A. J. Brown this year has become the only sanatorium of its kind in Mississippi.

In addition to maintaining its full popularity as a resort-hotel, Allison's Wells has added a sanatorium department for the treatment of malaria, mild mental diseases, gastro-intestinal trouble, gall bladder trouble, arthritis and other troubles.

The sanatorium, which is guided by a board of governors composed of ethical physicians, is equipped with modern facilities.

For full information and rates, address

ALLISON'S WELLS,

HOTEL - SANATORIUM

On I. C. Main Line between Canton and Durant, on Jefferson Davis Highway.

WAY, MISS.

A. J. Brown, M.D.

"A Source of Health In The Garden Spot of Central Mississippi"

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 **221 North Farrish St.**
Jackson, Mississippi

DUCKWORTH DRUG COMPANY
Booneville, Mississippi

Distributors of:

Luminal of Sodium

Tablets and Powder

Novocaine Ampoules

Atabrine

Elixir of Pryamidon

Theominal Tablets

WINTHROP CHEMCAL COMPANY
New York City

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most
Modern Business School

A. S. McCLENDON, President

MEMPHIS' *newest and most conveniently located hotel . . . .*

the Wm. Len

In addition to its famous southern cuisine and luxurious accommodations, the Wm. Len serves its guests an extra measure of genuine southern hospitality.

right down town in Memphis

ON MAIN AT MONROE

Hotel Wm. LEN

MEMPHIS, TENN.

R. E. McEachin, manager

HOUSTON HOSPITAL, Inc., HOUSTON, MISSISSIPPI

Approved: American College of Surgeons and American Hospital Ass'n.

—FULL TIME STAFF—

V. B. PHILPOT, M.D., F. A. C. S. Surgery and Gynecology	G. G. ARMSTRONG, M.D., F.A.C.S. Eye, Ear, Nose and Throat
J. R. WILLIAMS, M.D. X-ray, Superficial and Deep Therapy and Radium	O. B. CROCKER, B.A., B.S., M.D. Diagnosis, Internal Medicine

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

Printing . . .

We Specialize in Printed Supplies for the Medical Profession

Magnolia Printing & Supply Company

B. W. SANDIFER, Mgr.

Phone 6022
511 E. Pearl St. Jackson, Miss.

THE SOUL OF THE SURGEON

By DR. RUDOLPH MATAS

Composition cover sixty cents, leather eighty-five.

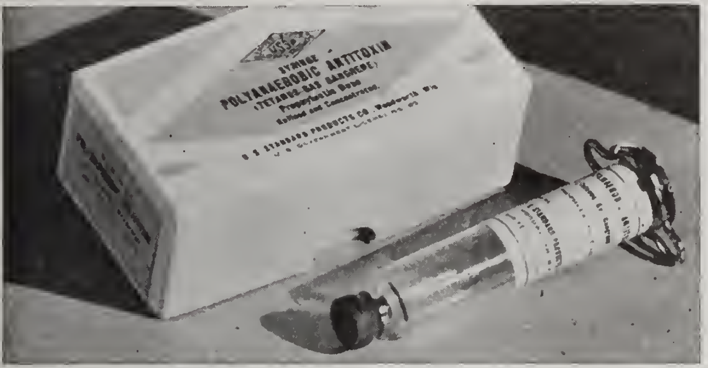
Send your order to

THE MISSISSIPPI DOCTOR
Booneville, Miss.

ACCEPTED AMERICAN MEDICAL ASS'N

TETANUS

GAS GANGRENE ANTITOXIN



Use as a prophylactic agent in cases of compound fractures, lacerated wounds, and post-operatively when indicated, etc.

The contents of one syringe is injected at weekly intervals until the wound is healed.

U. S. S. P. Co. Laboratories are noted for the production of highly refined tetaus antitoxin. Only young, vigorous and healthy horses are used. The antitoxin is sterile and free from toxic fractions.

—Write for full information.—

UNITED STATES USSP STANDARD PRODUCTS

U. S. S. P. Co. Laboratories are operated under U. S. Government license No. 65 in compliance with all regulations of the U. S. Public Health Service.

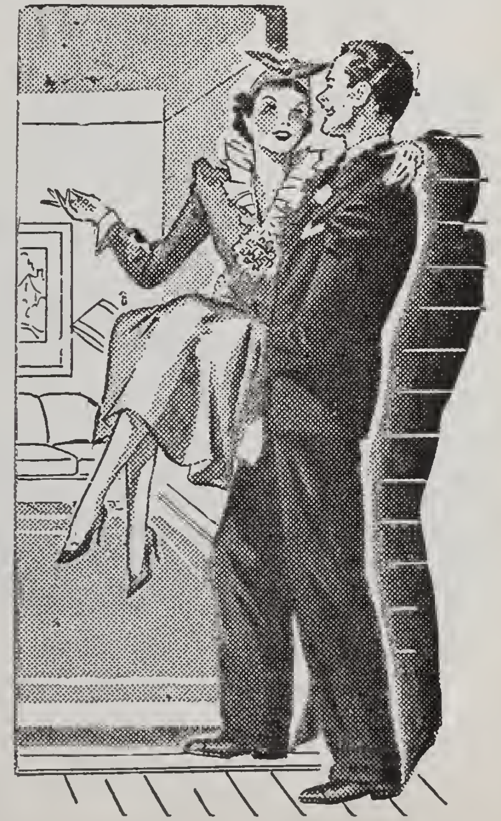
U. S. STANDARD PRODUCTS CO.

WOODWORTH, WISCONSIN

"Across The Threshold"

Years ago that phrase, "Across the threshold," spelled a doom of household drudgery and toil for almost every bride entering the portals of her new home. Today, thanks to modern electric home services, domestic tasks have been translated into amazing new steps to Better Living. This basic Mississippi industry employing over one thousand Mississippians takes pride in its pioneering for home happiness in the 309 cities, towns, communities and adjacent rural areas served.

MISSISSIPPI POWER & LIGHT CO.



JEFFERSON STANDARD LIFE INSURANCE CO.

The largest regular ordinary Life Insurance Company South of the Mason-Dixon Line.

Policy contracts especially adapted to members of the medical profession.

Trained life underwriters to advise and assist in securing your needs.

J. L. DENSON, District Manager
523-25 Lampton Building
Jackson, Miss.

JEFFERSON STANDARD LIFE INSURANCE CO.
JULIAN PRICE, President
Greensboro, N. C.

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate

THE WALLACE SANITARIUM
MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.
O. A. SCHMID, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

No. 706-N—With ¾-inch rubber tired, plain bearing wheels. Price $42.50.

No. 706-B—With one inch rubber tired, anti-rust tangent spoke ball bearing wheels. Price $49.50.

Streamlined . . .
INVALID CHAIR

A popular priced Streamlined model. Reclining back, adjustable footboard, ball bearing fork bracket, tubing push handle, and tubing hand rims are featured. Walnut finish on wood parts, brown enamel on metal parts. Width overall, 27 inches; between arms, 18 inches. Diameter of large wheels, 26 inches; small wheels 10 inches.

●

McKESSON & ROBBINS,
INCORPORATED
Doster-Northington Division
Birmingham, Ala.

Recently opened in answer
to a long keenly felt need--

MODERN PRIVATE SANITARIUM

— NEAR JACKSON, MISSISSIPPI —

ALCOHOLISM, DRUG HABITS, MILD NERVOUS DISORDERS treated. Special attention to limited number of problem children. A clinic will be operated for investigation, diagnosis and treatment of all psychiatric cases not requiring hospitalization.

This up-to-date sanitarium under personal direction of Dr. R. R. Welch, former Supt. of East Mississippi State Hospital, and prior to that, Ass't. Supt., Miss. State Hospital. He is assisted by a complete, highly trained staff. Excellent meals. Beautiful surroundings; quiet, restful. All outside rooms; private baths. Rates reasonable. Write or telephone.

Welch's Sanitarium, Inc.

Telephone 2877
Just off Clinton Blvd.

Dr. R. R. Welch, Medical Director
Jackson, Mississippi

THEOCALCIN

BILHUBER-KNOLL CORP.

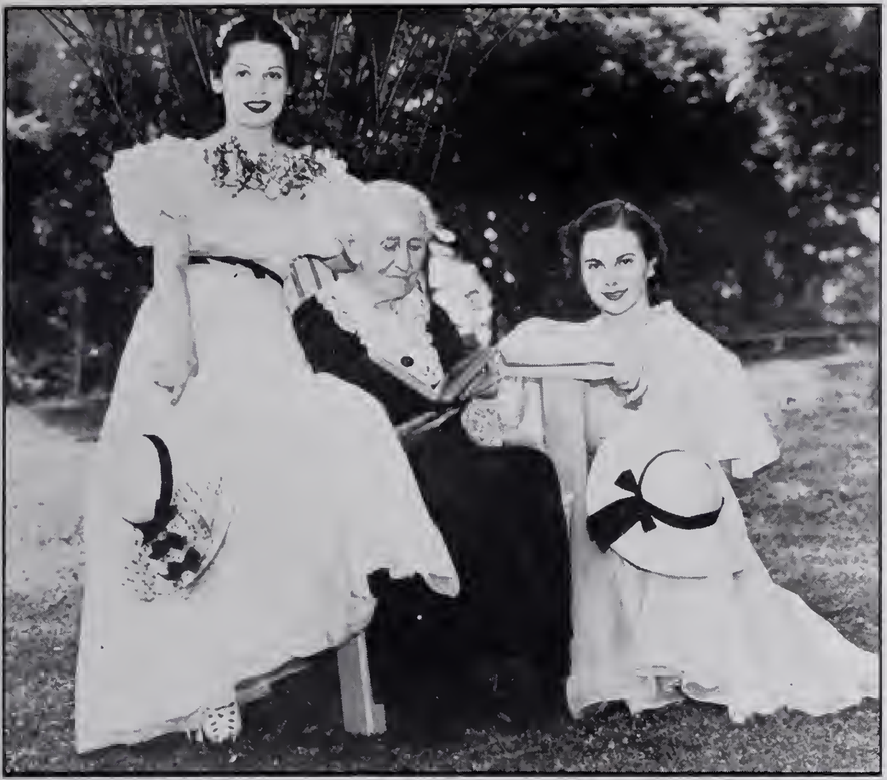
FOR the failing heart of middle life give Theocalcin beginning with 2 or 3 tablets t. i. d., with meals. After relief is obtained, the comfort of the patient may be continued with smaller doses. Strengthens heart action, diminishes congestion and dyspnoea . . .

THEOCALCIN (theobromine-calcium salicylate) *Council Accepted*

A Well Tolerated Myocardial Stimulant and Diuretic
Available in 7½ grain tablets and as a Powder . . .

KNOLL BILHUBER

BILHUBER-KNOLL CORP. 154 OGDEN AVE., JERSEY CITY, N.J.



Beautiful youth and beautiful age acquired in the ways of health and righteousness. "Mother" Berry and students of the college.

BLUE MOUNTAIN COLLEGE

**Blue Mountain,
Mississippi**

HEALTHFUL
HIGH ALTITUDE
MOUNTAIN SPRING
OUT DOOR EXERCISE
GOLF
TENNIS
AQUATICS
ARCHERY
SOFT BALL
BASKETBALL
VOLLEYBALL

*Lawrence T. Lowrey,
President*

FULL MEMBERSHIP IN SOUTHERN ASSOCIATION OF COLLEGES
FULL MEMBERSHIP IN ASSOCIATION OF AMERICAN COLLEGES

Located 25 miles south of the Tennessee line in a high and healthful setting among the "Berkshire Hills of North Mississippi," on the slope of beautiful "Blue Mountain," the college in its sixty-fourth year continues to train a superior type of young woman in the arts, letters, and professions, preparing her for life as a woman will live it.

No cigarettes, no alcoholic beverages, regular hours, sufficient rest, scientifically planned diet, properly exercised bodies, adequate relaxation, and trained minds, bring girls through the four most delicate years of their lives at Blue Mountain, the years in which they are emerging from girlhood into womanhood, healthy in body, cultured in mind, refreshed in spirit.

At the right is shown a group of typical Blue Mountain girls with Dr. John L. Hill, Nashville, Tenn., who gave the baccalaureate address on May 24, 1937.

Main Building

New Fenwick Sanitarium

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES
DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association — medical staff specially trained — clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds — homelike environments — located in the healthy and beautiful town of Covington, Louisiana — a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, OCTOBER, 1937 NO. 5

THE N.Y. ACADEMY
OF MEDICINE
AUG 26 1938

HEROISM is the brilliant triumph of the soul over the flesh, that is to say over fear: fear of poverty, of suffering, of calumny, of illness, of loneliness and of death. There is no real piety without heroism. Heroism is the dazzling and glorious concentration of courage.

HENRI-FREDERIC AMIEL

Research, Constant Research

continues to improve the quality of Mead's Brewers Yeast* in the following respects, *without increased cost to the patient*:

1. Vitamin B potency raised to not less than 25 International units per gram.
2. Bottles now packed in light-proof cartons, for better protection.
3. Improved bacteriologic control in harvesting and packing.
4. **And NOW, since August 1, 1936, all bottles are packed in vacuum. This practically eliminates oxidation. Mead's Yeast stays fresh longer, as you can tell by its improved odor and flavor!**

★ A dietary accessory for normal persons, for the prevention and treatment of conditions characterized by partial or complete deficiencies of vitamins B_1 and G, as in beriberi, pernicious vomiting of pregnancy, anorexia of dietary origin, alcoholic polyneuritis, pellagra.

◆

Mead's Brewers Yeast Tablets in bottles of 250 and 1,000. Mead's Brewers Yeast Powder in 6 oz. bottles. Not advertised to the public. Samples to physicians, on request.

◆

MEAD JOHNSON & COMPANY, Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

MAPHARSEN

MAPHARSEN is easily and quickly prepared for injection. Single doses can be dissolved in syringe and ampoule, without necessitating the use of sterile beakers or other apparatus.

In contrast to the arsphenamines, Mapharsen solutions do not become more toxic on standing; agitation or exposure to air does not increase their toxicity. Haste in completing injections immediately after preparation of solutions is unnecessary.

With the patient either in a sitting or recumbent position, injection can be made according to the usual intravenous technic. Mapharsen solutions should be injected *rapidly*—at the rate of 10 cc. (the entire dose) within 30 seconds after the needle is in place.

Mapharsen treatment is conveniently administered. The ease and rapidity of injection minimize discomfort and encourage patient cooperation.

Mapharsen (meta-amino-para-hydroxy-phenylarsine oxide hydrochloride) is available in single dose ampoules containing 0.04 and 0.06 Gm., each in individual packages with or without distilled water. It is also supplied in ten dose ampoules, containing 0.4 and 0.6 Gm., for use by hospitals and clinics

PARKE, DAVIS & COMPANY

THE WORLD'S LARGEST MAKERS OF PHARMACEUTICAL AND BIOLOGICAL PRODUCTS

Here's A **FLEXIBLE** Short Wave

L-F

STANDARD MODEL

Short Wave Generator

TWO METHODS OF APPLICATION!

LIEBEL-FLARSHEIM
Standard Model
Short Wave Generator
— Accepted —
American Medical Assn.
Council on Physio-Therapy

A most acceptable unit for average use. Generally recognized as the best dollar-for-dollar Short Wave value available. Over a thousand now in use — all rendering eminently satisfactory service.

AMPLE POWER is generated for all types of pad and cable therapeutic treatment, including fever therapy. Current for minor office electro-surger is also available.

SIMPLE TO OPERATE — having only a single dial control for each modality — instantly and smoothly regulated — no jumps or steps. Shock proof — an all-purpose unit. Product of electro-medical apparatus manufacturers in business over twenty years.

INDUCTANCE CABLE

**— as well as —
CONDENSER-PADS**

This choice of applicators enables you to use the method best suited to the part being treated. Condenser-Pads are recommended for use on regular surfaces, and Inductance Cable for irregular surfaces. Either modality is quickly and easily applied.

MODERATELY PRICED — TERMS — Easy payments to suit your convenience will make the installation of this unit virtually a self-liquidating investment.

It will pay you to investigate the many advantages of this unit. It is the only Short Wave generator on the market affording the use of two methods of application, namely, the Inductance Cable and Condenser-Pad applicators — which have stood the test of prolonged use — nearly two years! Literature gives complete details.

THE DICK X-RAY COMPANY

MEDICAL ARTS BUILDING MEMPHIS, TENN.

Tear off Coupon and Mail Today—No Obligation

THE DICK X-RAY CO.
Medical Arts Bldg.
Memphis, Tenn.

Please let me have complete details on the L-F Standard Model Short Wave Generator — without any cost to me.

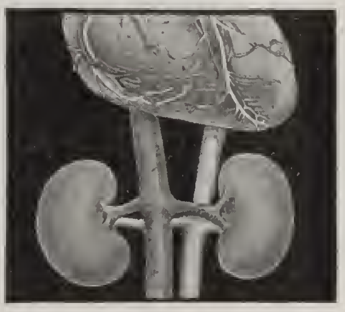
DR. ....

ADDRESS ....

TCS

Theobromine, gr. 3.40 Calcium, gr. 0.12 Salicylates, gr. 3.48
Phenobarbital, gr. 0.25

Diuretic, coronary vasodilator, myocardial and renal stimulant and neuro-circulatory sedative.



Indications: Hypertension, angina pectoris, coronary thrombosis, myocardial insufficiency, and edema.

* * *

Directions

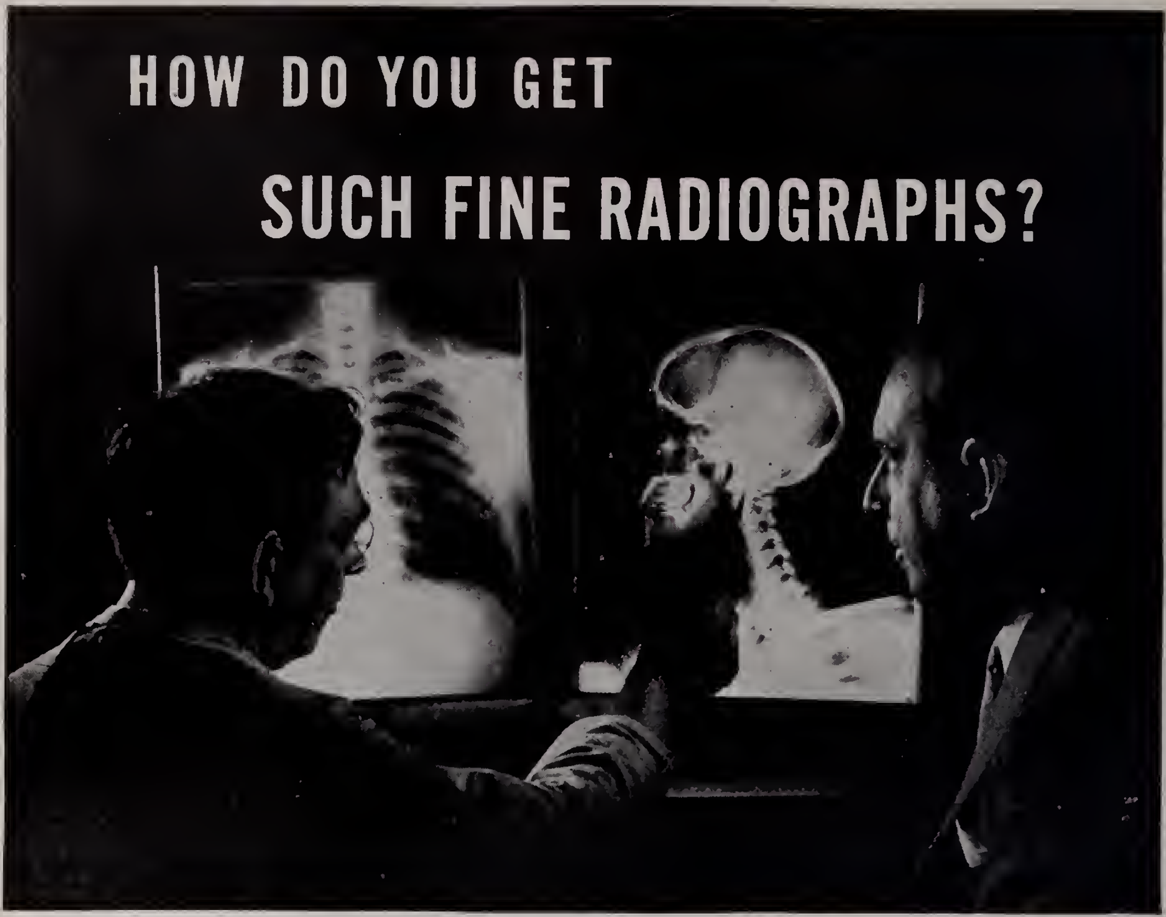
One to three tablets three or four times daily.

* * *

Dispensed in bottles of 50 and 250 tablets

* * *

WM. P. POYTHRESS & COMPANY, *Inc.*
MANUFACTURING CHEMISTS
RICHMOND VIRGINIA



THIS frequent inquiry, enthusiastic users of the Model R-36 Diagnostic X-Ray Unit tell us, is another source of continual satisfaction.

Owners are producing uniformly good diagnostic radiographs because this practically designed unit is simple and easy to operate—accurately.

Here's a unit that packs real power—chest radiographs, for example, with $^1/_{10}$th- and $^1/_{20}$th-second exposures at 6 feet distance. With two focal spots in the radiographic tube, you select the one best suited to technic and area of the body under observation.

Fluoroscopy too—from head to toe—at any angle, with a separate tube and high voltage circuit, operated through the same control unit.

Shockproof, self-contained, compact, of the finest electrical and mechanical construction, the R-36 is a sound, economical investment for the physician who is forging ahead, determined to give all his patients the full benefits of modern diagnostic facilities.

Want the complete story? Use this convenient coupon.

GENERAL ELECTRIC A-510
X-RAY CORPORATION
2012 Jackson Blvd. Chicago, Ill.

Please send your booklet on the R-36 X-Ray Unit for complete diagnostic service.

Name..

Address..

City.............................. State..........................

HOYE'S SANITARIUM

"IN THE MOUNTAINS OF MERIDIAN"
Meridian. Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital.

Robert E. Lee Hotel

"The High Spot of Southern Hospitality"

Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager **STEWART GAMMILL, Jr., Asst. Mgr.**

Diabetics LIVE LONGER TODAY

THE LIFE SPAN of the diabetic has been lengthened considerably following the discovery of Insulin and the growing knowledge of its use. There is, however, a definite responsibility on the part of the physician to educate the many new diabetics in the importance of proper diet and proper use of Insulin preparations.

The apparent increase in diabetes in recent years has been attributed to the modern manner of living, increased sugar consumption, overeating and lack of muscular exercise. With proper management the great majority of patients can be kept well-nourished, sugar-free, and at work.

Insulin Squibb is an aqueous solution of the active anti-diabetic principle obtained from pancreas. It is accurately assayed, uniformly potent, carefully purified, highly stable and remarkably free of pigmentary impurities and proteinous reaction-producing substances.

Insulin Squibb of the usual strengths is supplied in 5-cc. and 10-cc. vials.

Protamine Zinc Insulin, *Squibb* complies with the rigid specifications of the Insulin Committee, University of Toronto, under whose control it is manufactured and supplied. It is available in 10-cc. vials. When this preparation is brought into uniform suspension, each cc. contains 40 units of Insulin together with protamine and approximately 0.08 mg. of zinc.

E·R·SQUIBB & SONS, NEW YORK
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

Short-Wave Diathermy Unit

STANDARD MODEL
500 WATTS OUTPUT
18 METERS

Standard accessory equipment furnished with the Hogan Brevatherm "Standard Model" includes:

1 pair 5" x 7" condenser plate electrodes
1 pair 7" x 9" condenser plate electrodes
2 pair cuff electrodes (medium and small)
1 felt "build-up" pad for each electrode above
1 pair rubber electrode bandages with fasteners
1 line cord and plug

Treatment cords with jack plugs are attached to each electrode.

THE GWINNER-MERCERE CO.
191 MADISON AVE.
MEMPHIS, TENN.

BAPTIST HOSPITAL
Jackson, Miss.

ANNOUNCING . . .

Mississippi's First and Only Complete Surgical Supply House;
Carrying a Full Line of Quality Merchandise for Physicians
And Hospitals

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St.
Jackson, Miss.

- Wheel Chair Rentals
- Belts and Truss
- Rubber Goods
- Physio-Therapy Equipment
- Hospital Furniture
- Surgical Instruments

Etc.

The Friendly Store of Dependable Service
Why not give us a try next time you have anything to Buy

IN THIS ISSUE

PRESENT DAY MORTALITY RATE OF ACUTE APPENDICITIS
John Lucius McGehee, M.D. 1
URINARY LITHIASIS
George R. Livermore, M.D. 3
OBSERVATIONS ON THE CANCER PROBLEM—Ward Rounds, Part 6
Isidore Cohn, B.S.c., M.D., F.A.C.S. 7
HOSPITAL INSURANCE
C. E. BOYD, M.D. 10
ROCKY MOUNTAIN SPOTTED FEVER IN MISSISSIPPI—A Case Report
V. B. Harrison, M.D., and
John C. Culley, M.D. 13
PROTAMINE ZINC INSULIN
Henry B. Gotten, M.D. 16
AMERICAN MEDICINE—EXPERT TESTIMONY OUT OF COURT
George L. Brown, B.S., M.D. 20
MY FIRST EMERGENCY SURGICAL OPERATION UNDER MANY DIFFICULTIES, GREAT EXCITEMENT AND CONFUSION
H. A. Gant, M.D. 25
EDITORIALS 27
FROM PRESIDENT LITTLE 29
GEORGIA PEDIATRIC SOCIETY 30
THE LIFE AND MISSION OF THE PHYSICIAN — J. C. Fountain, M.D. 30
DR. G. T. CRANFORD DIES 31
FIRST KNOWN CAESAREAN OPERATION 31
DR. SMUEL A. MUDD HERO OF THE DRY TORTUGAS
Leo M. Zimmerman, M.D. 32
SOUTHERN BRANCH SOCIETY OF THE AMERICAN UROLOGICAL ASS'N. 35
NEW YORK WORLD'S FAIR 35
CAESAREAN SECTION
H. R. SHANDS, M.D. 38
THE VALUE OF BRONCHOSCOPY IN GENERAL MEDICINE
Murdock Equen, M.D., and
Frank Neuffer, M.D. 41
THE MANAGEMENT OF LABOR—A PLEA FOR THE EXPECTANT MOTHER
B. Lampton Crawford, M.D. 45
GONORRHEA
J. W. Jackson, M.D. 50
MISSISSIPPI STATE MEDICAN ASS'N. 54
MISS. STATE MEDICAL ASS'N. NEWS 55
WOMAN'S AUXILIARY 68

Index to Advertisers

Allison's Wells xix
American Surgical Supply Co. viii
Baptist Hospital, Jackson, Miss. vii
Courtesy Cards ....xi, xii, xiii, xiv
Duckworth Drug Company xv
E. R. Squibb & Sons vi
Eli Lilly And Company x
General Electric X-Ray Corporation iv
H. A. Phillips Artificial Limb Company xv
Hotel Wm. Len xvi
Houston Hospital, Inc., Houston, Miss. xviii
Hoye's Sanitarium v
Jefferson Standard Life Insurance Co. xvii
Lynnhurst Sanitarium xvii
Magnolia Printing & Supply Co. xviii
McKesson & Robbins, Inc. xix
Mississippi Power & Light Co. xx
Parke, Davis & Company i
Robert E. Lee Hotel v
The Dick X-Ray Company ii
The Draughon School of Commerce xv
The Gwinner-Mercere Co. vii
The Three Musketeers Book Shop xviii
Tulane University of Louisiana School of Medicine xviii
The Walace Sanitarium xx
U. S. Standard Products Co. xiv
Wm. P. Poythress & Company, Inc. iii

'Entoral'

(ORAL COLD VACCINE, LILLY)

● 'Entoral' has been subjected to careful clinical investigation among industrial groups, institutional groups, office workers, and school children. Vaccinated persons may show a decrease of at least 60 percent in the number of colds which would ordinarily be anticipated in the light of their previous history over a period of several years.

Vaccination with 'Entoral' involves the administration of a single pulvule of the vaccine daily for one week, followed by two pulvules each week throughout the epidemic season of upper respiratory infections. Immunization should be repeated annually.

'Entoral' (Oral Cold Vaccine, Lilly) is supplied in bottles of 20 and 60 pulvules (filled capsules).

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Present Day Mortality Rate of Acute Appendicitis

JOHN LUCIUS McGEHEE, M.D.
MEMPHIS, TENN.

The statisticians tell us that during the present 12 months 36,000 people in the United States will die with acute appendicitis.

Dr. Hoffman of the Metropolitan Life Insurance Company annually calls our attention to a rising mortality rate in this disease.

The editor of a large news daily commenting on one of Dr. Hoffman's reports has this to say: "Dr. Hoffman has given the medical professon something to concern itself with in the results of his latest studies."

"The American public," says Dr. Hoffman, "is entitled to an explanation of the extraordinary difference in the appendicitis death rates for this county, and for example, England, where the rate is 7.7 per cent per 100,000 against our rate of 18.1 per cent."

Quoting further from the above mentioned editorial, "It would certainly seem to be the duty of the local medical societies to inquire into the facts explanatory of the local appendicitis death rate. If there is lack of surgical skill in such communities, the matter imperatively demands consideration, for it goes without saying that most of the deaths follow operations, since it is a safe assumption that three-fourths of the appendicitis cases find their way into hospitals for more skillful treatment."

Here is a plain statement of facts, called to our attention not only by one of the members of our profession, but by a lay editor also, reminding us that the responsibility for such a state of affairs rests with us and that the public expects the medical profession to apply the remedy. Let us then accept the responsibility and give thought to the whole matter, determine the causes of such a mortality rate and having determined the causes, apply the remedy.

There are, based on the known pathology of acute appendicitis, certain facts which are self-evident truths and which may be considered axiomatic. In teaching medical students we have incorporated these facts into what we are pleased to call the APPENDICEAL CREED. It contains four professions of faith:

First: I believe that all deaths from appendicitis are unnecessary deaths.

Second: I believe that all patients dying do not die from appendicitis *per se* or from the operation, but die from the complications of appendicitis.

Third: I believe that in *every* fatal case of appendicitis *there was a time* (the opportune time) during the course of the disease, when the removal of appendix would have resulted in recovery instead of death.

Fourth: I believe that this "opportune time" preceeds the development of complications (the cause of death).

It is hoped and believed that the inculcation of these general principles into the minds of the rising generation of medical men will reduce the present day unnecessary mortality rate of the most common and most treacherous of abdominal disease. If these axiomatic statements are true, then why the mortality rate which justifies a layman in calling us to account? It is the failure to apply this knowledge that the explanation of this death rate is to be found.

In its last analysis, it is the appreciation of the time element. The elapsed time between the onset and the disease and the application of the only known, rational therapeutic measure—appendectomy.

It is our opinion that three factors act as causative agents in this mortality rate. The attitude of the medical profession collectively and in too many instances individually, the attitude of the public, and the attitude of a certain group of surgeons. As to the public attitude, the matter of public education on subjects medical is a painfully slow process and as long as human nature is what it is, no millennium is to be expected from the dissemination of knowledge in reference to the signs and symptoms of appendicitis. If they could only be taught a few simple facts, such as, "A pain in the abdomen is appendicitis in 50 per cent of the cases," not to take purgatives for relief of this pain, and send for a doctor for diagnosis primarily, and that the time for operation is when diagnosis is made—provided it is made in time, a great step forward would be made in the reduction of this mortality rate. There will always be cases in which the doctor will arrive on the scene too late, and for these our profession can feel no responsibility for the castrophe. Our responsibility begins when we arrive and "aye, there's the rub."

It is the writer's humble opinion that the larger percentage of this unnecessary mortality rate is due to the attitude of the average physician and surgeon. Why is it, that after 40 years, opinion has not crystallized? Why is it that the average doctor has not definite well-formed ideas in reference to the diagnosis of appendicitis? Why do we, in a disease with a clear cut, characteristic symptomatology have these tragic catastrophies, which are a reproach to the medical profession? The answer lies in the attitude of three groups in the profession: One, inappreciative of the significance of the history and symptomatology with a lack of positive ideas as to the unquestionable urgency for appendectomy before complications arise, who are influenced in their advice to the patient by the reaction of the patient or the patient's family, or by other motives of expediency, who dillydally, who hesitate, who "fiddle while Rome burns." For this group we should be tolerant and sympathetic, for they know not what they do. The second group we may call the "intelligentia," who are so impressed by their diagnostic acumen that they imagine they know, or wish to impress the patient with the fact that they know the exact stage of the inflammatory process and the exact type of disease of the appendix present in a particular case; who give such fulsome advice as, "You will get over this attack,"—"Tomorrow will be time enough to operate."—"You have acute appendicitis, but operation may be avoided." Usually they are the type who speak with great authority and greatly impress the by-standers, but who cry loudest for the surgeon whenever their speculative prognostications go awry. Thirdly, the attitude of the average surgeon who carries in his mind the childish picture of the appendix as an organ easily removed and who does not realize that the highest degree of surgical skill is commonly required for the complications. Dr. Hoffman reports that in the registration area of the United States 20 per cent of the cases of acute appendicitis are ruptured when referred to the surgeon. Cases with fatal consequences could be submitted as illustrative of the practice of these three groups of physicians, which would too prolong this discussion.

In the John Gaston Hospital we carry two groups of acute appendicitis: The intramural group consisting of nurses, medical students and attaches of the hospital. In this group the mortality rate is less than one per cent for a period of three years. In the other groups, consisting of the "run of the mill," we have, by adopting a modernized Ochsner treatment, succeeded in reducing the mortality rate to 11 per cent, which brings it to where the late Dr. Deaver many years ago said it should be.

Until the public learns that an abdominal pain is more apt to be appendicitis than anything else; until the public learns not to take purgatives when its belly hurts; until the public learns to send for a doctor to decide the question; and until the doctors learn that a primary generalized abdominal pain, followed by nausea and vomiting, localizing in the lower right quadrant, with fever, acceleration of pulse and leukocytosis, means acute appendicitis and nothing else—not acidosis or allergy or acute indigestion, and that appendectomy is indicated as soon as the diagnosis is made, and not at some convenient hour, and gives the patient such advice, we will continue to have this mortality rate in this disease.

The mortality rate in appendicitis is fair index of the diagnostic acumen of the medical profession of any community.

Urinary Lithiasis

GEORGE R. LIVERMORE, M.D., F.A.C.S.
Professor of Urology, Univ. of Tennessee
MEMPHIS, TENN.

Stone in the urinary tract is one of the most frequent affections the urologist is called upon to treat. It may occur in any part of the tract even involving the prostate gland, which is only indirectly connected with it. Stones, too, may form under the prepuce in uncleanly men or in those with congenital, traumatic or chronic inflammatory phimosis.

HISTORY: Urinary lithiasis dates back to antiquity .The earliest specimen of vesical stone was found in an Egyptian mummy thought to have been buried five thousand years B. C. In Greece Hippocrates (460-370 B. C.) wrote of both renal and vesical calculi. Although he operated on the kidney for pyonephrosis and perinephritic abscess, his oath forbade his followers to operate for stone leaving it for those who were accustomed to perform it. Two hundred years later Ammonius made the first attempt to crush a stone by perineal lithotomy.

In Rome Celsos, first century A. D., devised an operation for stone in the bladder and left such a good description that it was used almost without modification until the sixteenth century. The Lithotrite was first introduced by Ciavioli in 1818, but it was not till 1846 that any attempt was made to wash out the fragments. In 1878 Bigelow, of Boston, devised his evacuator.

Stone in the kidney was not thought operative till the 19th century, although some writers say Di Marchetti, an Italian, removed stones by nephrotomy in the seventeeth century. Gustav Simon did the first nephrectomy in 1869 and Morris removed the first stone from the kidney in 1880. The first positive x-ray diagnosis of stone in the kidney was made by McIntyre in 1896.

DISTRIBUTION: It is almost universal although I can find no reference to stone in the Esquimeaux. It is especially prevalent in hot countries, in India, south China, southern Russia and Mesopotania, but in Africa the negro is practically lmmune. In the wet tropical countries, e.g. Equedor, stone is also very rare. The negro in our country is not so fortunate as his African brother, for stone in the negro in the South is not uncommon.

ETIOLOGY: The cause of stone in the urinary tract, despite the wonderful amount of painstaking, tedious and self sacrificing research that has been done and is now under way, we are still in the dark as to the true cause of stone. Wesson, in his presidential address before the American Urological Association in 1935, said, "I have decided that we know little more about how to prevent stones than did Hippocrates."

Many theories have been advanced, but none applies to all cases. In fact it would be ridiculous to expect the same cause to be applicable to all stones, with conditions and pathology varying in every case. One of the newer theories is hyperparathyroidism. You doubtless know that the parathyroids regulate calcium metabolism. As I stated in a paper "Nephrolithiasis," read fefore the Southern Surgical Association in 1934, I believe a disturbance in the metabolism of one mineral may upset that of another, for it is a fact that when animals are fed on parathyroids or in hyperparathyroidism there is not only an increase in blood calcium but also in blood phosphorus, hence, parathyroid tumor or disease is frequently associated with stone in the urinary tract. Another of the later theories is a deficiency in vitamine A and D. Many workers including the author, have proved that a large percentage of Albino rats when deprived of vitamine A or D, develop stones in the urinary tract and when deprived of both, the incidence of stone is higher. We have known for a long time that calcareous deposits frequently form on ulcerations and tumors of the bladder. The author, in collaboration with Bliss and Prather, advanced the hypothesis that stasis resulting from ulcerations and exfoliation of the epithelial lining of the ureters and bladder might account for stone formation in the experimental rats who developed stones when fed on a vitamine A and D deficiency diet. Randall (New England Jour. of Med. Feb. 6, 1936) now comes forward with the hypothesis that stones may originate in the kidney pelvis from calcareous deposits upon minute papillary plaques. The colloidal theory in which it is claimed an imbalance of the urinary colloids may result in stone formation also has many advocates. That infection, stasis and faulty metabolic processes contribute much to the formation of urinary tract calculi, there is no doubt. The old idea of a nucleus or nidus being necessary for the formation of a stone still holds true, and Burke has examined numerous calculi and found nuclei in the vast majority. The nucleus consisted of bacteria, red or white blood cells, or all three..

Diet, sedentary habits, climate, water with large amount of calcium, and the failure to drink sufficient water may be classed as factors that may play some part in urinary lithiasis. From our present knowledge of the subject I am convinced that each case is a law unto itself, that certain conditions differing in each individual are requisite for the production of a stone; that one or more of the triad, infection stasis and faulty metabolism must be present before some other causative factor or factors are capable of finally forming a stone. The frequency of stone in the bladder in hypertrophy of the prostate and stricture of the urethra where infection and stasis is present, is too well known to necessitate any comment.

SYMPTOMS: These vary with the location of the stone. When in the kidney, there may be no subjective symptoms, for often a stone is discovered by chance, when following an injury, an X-ray is made and the stone is shown; this is the so-called silent stone. Even in this type, however, objective symptoms are present in the form of pus, albumin, blood and bacteria, in the urine. In other cases, in addition to the urinary findings, there may be pain in the kidney region or referred along the ureter to the groin, testicle or glans penis. This may vary from a dull ache to excruciating renal colic, rigors, fever, profuse sweats and a leucocytosis, with increased polymorphonuclears. Fist percussion over the affected kidney usually elicits pain.

When in the ureter, the same variations of the same symptoms may occur. The pain may be located in the kidney, in the ureter at the site of the stone or referred to the groin, testicle or glans penis, and in addition calculus anuria may be present. This is the result of blockage of the ureter and may occur not only on the affected side but also in the opposite kidney, the so-called reno-renal reflex. Some authorities claim this occurs only when both kidneys are diseased, to which I concur.

Rigors, fever and sweats with leucocytosis and high polymorphonuclear percentage are frequent symptoms. The resulting back pressure and infection will soon destroy the kidney unless promptly relieved by 'catheter drainage or removal of the stone. Often the patient's condition is extremely critical, especially when complicated by anuria. In such cases nephrostomy and drainage will usually tide the patient over until his condition justifies removal of the stone. Nephrostomy is often a life saving procedure, whose value is not generally appreciated.

When in the urethra, there are symptoms of obstruction, with back pressure on the bladder, ureters and kidneys. The patient has difficulty in voiding, complains of a sensation of obstruction to the passage of urine. He voids small amounts at frequent intervals with much straining and tenesmus. The urine is generally cloudy, contains albumin, pus, bacteria, blood and mucous. Sometimes the stone may be palpated in the urethra, in other cases, ulceration, abscess or the formation of a fistula may result. On account of the obstruction to the passage of urine, there may be backache, pain in one or both loins, malaise, rigors, fever and sweats with leucocytosis, increased polymorphonuclear percentage and high blood chemistry.

DIAGNOSIS: The X-ray is our best diagnostic aid. Unfortunately all stones do not cast a shadow, especially when the stone is in line with a bone, but as a rule most calculi can be shown on the X-ray film. Failure may sometimes be made a success by injecting a pyelographic medium, allowing it to flow out, then taking another X-ray. Intravenous urography is especially serviceable in such cases. It should never be depended upon however, for determining kidney function, as it is not reliable alone, but valuable when interpreted with other functional tests. A word of caution, too, in regard to making a diagnosis from intravenous pyelograms is not amiss for often they are misleading and should always be checked with retrograde pyelograms whenever this is possible.

Kidney and ureteral stones may sometimes be diagnosed by scratches shown on wax tipped catheters. Ureteral calculi often cause obstruction to the passage of a catheter, but in many cases the catheter glides by the stone so easily, there is no evidence of its presence. If the stone is causing marked blockage and we succeed in passing a catheter beyond it, there is usually a free flow of retained urine, which in the infected cases is frequently very purulent.

When in the bladder, the cystoscope is our best diagnostic aid. On the other hand in many cases due to stricture, hypertrophy of the prostate, congenital malformations and stone in the urethra, it is impossible to pass the cystoscope into the bladder. In such cases and in fact, in all cases of bladder stone, the, X-ray will make the diagnosis.

When in the urethra or bladder a sound or stone searcher will elicit the peculiar click of metal striking a hard substance. When in the urethra, there is usually obstruction to the passage of any instrument, although in some cases the stone may be in a pouch or diverticulum and cause no obstruction. Stones in the bladder also, may be overlooked because they may be encapsulated, or may have formed in a diverticulum. Calcareous matter too, may be deposited upon ulcerations or tumors of the bladder. These, however, are not considered true calculi and may be removed by the injection of acidophilus bacilli and acidification of the urine. Of course they soon reform if the ulcer or tumor is not eradicated and the urine kept acid. When in the prostate, we may suspect calculi if the prostate feels crepitant or hard rounded particles can be palpated through the renal wall. A roentgenogram makes the diagnosis certain. Stones in the prostate may be multiple small ones, fine sand or one or more isolated large ones. Stones under the prepuce may be diagnosed by the history of phimosis, palpatation of the stone or stones through the prepuce and the foul purulent discharge.

TREATMENT: Kidney stones; this varies with the location, size, number, infection, age and condition of the patient and the functional capacity of the kidneys and whether unilateral or bilateral. It is the opinion of the author that a stone in the kidney is a potential source of danger, that it usually increases in size as time passes and if not removed will eventually destroy the kidney in every infected case and in a large majority of non-infected ones. The stone, too, may act as an irritant and be the etiological factor in the production of carcinoma or hypernephroma. Scholl reports such cases of carcinoma and I have reported a case of hypernephroma. A stone therefore, should always be removed provided the condition of the patient and the kidneys make the risk justifiable. Pyelotomy is the operation of choice when the stone is in the pelvis, but in fat people when the kidney pedicle is short, this may be impossible, hence, we should not hestitate to do a nephrotomy as the old bugbear of hemorrhage has now been eliminated by suturing pieces of muscle or fat in nephrotomy wounds, and providing drainage of the pelvis. When the stone is in the parenchyma, nephrotomy must be done. A kidney should always be saved when it is in good condition and will not prove a source of trouble following the removal of the stone. If cavities or markedly dilated calyces are left, stasis will result, suffering is sure to follow and recurrence of stone very likely to occur. If both kidneys are damaged and we feel that neither will ever be restored to normal, we should not remove the calculous kidney as two poor kidneys are better than one poor one. When a large cavity is left after removing a stone from the upper or lower pole hemi-nephrectomy should be done. Recurrence of stone is reported to be more than 10 per cent. It is therefore essential to remove all fragments at the time of operation, using pelvic lavage and X-ray of the exposed kidney after all stones are thought to have been removed. We should prevent stasis by placing the kidney in the best possible position and leaving no cavities. Post operative cystoscopy: dilatation and pelvic lavage, the administration of mandelic acid and perhaps prontylin, till all infection and obstruction have been eradicated. All foci of infection should be eliminated.

When the stone is composed of alkaline phosphates keep the urine acid and its specific gravity low. In uric acid stones, put the patient on an alkaline diet and reduce specific gravity. When infection is present give mandelic acid, prontylin, acid ash diet, hexamethylenamine tetramine, pelvic lavage and as a last resort, nephrostomy. Eliminate disease and hypertrophy of the parathyroids in calcium and phosphate stones and in all cases insist on a full vitamine A and D diet, drinking distilled water, exercise and bowel movement daily.

When in the ureter: Many stones in the ureter will pass spontaneously. It is remarkable how many more will pass after intraurethral manipulations and avertin 2 percent injected through a ureteral catheter. When the stone is more than .75 cc. in diameter it should be removed by operation. No rule will apply in every case. The treatment therefore will depend upon the size, position, number and the condition of the patient and the functional capacity of the kidneys. A p.s.p. test should be made if a catheter can be passed beyond the stone. If not, then the ureter is dilated below the stone by passing the Livermore, Walther or Dourmaskin dilator or several catheters or bougies may be used. If the stone does not pass in a week and the patient has no untoward symptoms, we again attempt to make a catheter go beyond the stone. Two percent avertin injected through the ureteral catheter may help. If we are successful we can then feel safe to prolong our intraureteral manipulations as long as the condition of the patient will permit. Often the p.s.p. test is very poor from the back pressure caused by the stone and if the kidney is not permanently damaged, will under drainage return to normal or nearly so. If several catheters can be passed beyond the stone when in the lower ureter, gentle traction after twisting them about it will sometimes deliver the stone into the bladder. If the p.s.p. test does not improve or if it begins to fail and the stone does not pass, it should be removed by operation and nephrectomy done if necessary. If we can not pass a catheter beyond the stone and with no downward progress, operation should not be delayed more than two weeks even though the patient's general condition seems good, as destruction of the kidney may result. With stones in both ureters, in the presence of infection, with rigors, fever, sweats and sometimes anuria, it is safest to pass a catheter beyond the stone and establish drainage. This usually enables the patient to get in better condition to undergo an operation. If, however, we are unable to get a catheter beyond the stone, operation must be done at once. Nephrostomy in such cases will often prove a life saver, and the stone may be removed at a later date.

When in the bladder: Litholapaxy is the operation of choice and should be done whenever possible. We should be very careful to see that the patient is properly prepared, especially the aged. Give them hexamethylenamine grains ten, four times a day by mouth and thirty-one grains twice daily intravenously. The bladder should be irrigated daily with permanganate of potash grains one to to the pint or silver nitrate 1 to 5000, and the physical condition improved in every possible way. If we can not crush the stone, then it should be removed by suprapubic or perineal lithotomy.

I wish to sound a note of warning against traumatizing the bladder mucosa, particularly in old people, as the reaction is usually so severe, from absorption of septic material, that it may result in death. If the stone or stones are not easily removed, I advise a two stage operation. First, perform a suprapubic cystotomy and later remove the stone or stones through the cystomy wound. Hexamethylenamine tetramine should be continued both by mouth and by vein as before operation.

When in the urethra — If in the penile urethra the stone can usually be removed by forceps through the endoscope. If too large, external urethrotomy must be resorted to. This is unfortunate as a fistula may result. When in the membraneous or prostatic urethra, if small it can be removed through the endoscope, but as most stones in this locality are large, external urethrotomy is necessary.

When in the prostate — If causing no symptoms they may be treated expectantly. However, as the prostate in such cases is usually hypertrophied and obstruction is present, if suitable for resection and the stones are small, resection is the operation of choice. If large stones are present prostatectomy should be done. If a stone forms in the prostate of a young man it should be removed by suprapubic cystotomy and the prostate injured as little as possible. If when under the prepuce, the stone or stones should be removed by circumcision.

In all cases where infection is present and the patient is having rigors, high fever and sweats, one percent mercurochrome in fifty percent glucose given intravenously in one to five cc. doses will usually control the rigors and fever provided drainage has been established and failed. Begin with small doses 1 to 2 cc. and if no deleterious effect is produced increase the dose daily to five or more ccs. If given, as above described, I have never seen any bad effects, but on the contrary, the good effects are often spectacular.

Medical Arts Building
Memphis, Tenn.

Ward Rounds — Part 6

Observations On The Cancer Problem

ISIDORE COHN, B.Sc., M.D., F.A.C.S:
Chief Department of Surgery, Touro Infirmary,
Professor of Surgery, Graduate School of the
Louisiana State University Medical Center
NEW ORLEANS, LA.

The cancer problem still has many disappointing aspects. In spite of the rapid encroachment of surgery on what were formerly the frontiers of medicine we find the lessons taught by the pioneers remain unheeded.

All too often various forms of therapy are applied while the lesion is still sufficiently localized to be removable by surgery.

While cancer is still a local lesion surgery is the preferred method of removal. Therapy alone is not the only fault. Failure to investigate by every known method during the early stages allows many lesions to pass beyond the surgically curable phase.

This applies particularly to carcinoma of the lung. Physical examination fails to provide evidence of these centrally located lesions unless an obstruction of the bronchus has caused either a collapse or a pneumonitis. The x-ray and the bronchoscopic examination with the biopsy materials obtained by the latter method are the only positive means at our disposal for diagnosis at a stage when relief may be expected.

All too often the protracted ,non-productive, cough is considered to be tuberculosis or the result of a fungus disease until it is too late. If patients were given the benefit of an early bronchoscopic examination many small carcinomas of the bronchus could be diagnosed at a time when removal of the lung could be done with expectancy of cure. Up to the present time irradiation therapy has not been successful in producing cure in any recorded case. There are instances of cure from radical surgery at an appropriate time. The outlook in cancer of the lung will be brightened by early recognition and adequate surgical intervention.

Carcinoma of the lung has until recent years been considered an extremely infrequent primary disease, and when found a hopeless attitude was assumed. All are familiar with carcinoma of the lung as a metastatic lesion, yet even in this group sufficient attention has not been paid to determining its presence before unwarranted surgery is proceeded with. This sounds like a rather harsh statement, yet it is true. Is it not a fact that many patients are operated for carcinoma of the breast without being given the benefit of a preliminary x-ray examination of the chest? I believe that all will concede that any so called radical operation on the breast when a lung metastasis exists cannot be radical; therefore, extensive operations on such patients are unwarranted. So much for that.

How about primary carcinoma of the lung? Is this a frequent disease? Is it diagnosed correctly at an early stage? If it is diagnosed can it be successfully operated?

Evidence is accumulating that primary carcinoma of the lung is not an infrequent disease. It is estimated that it accounts for 10 per cent of all primary malignancies. The majority, if not all primary carcinomas of the lung, are bronchogenic in origin. The clinical manifestations are often mistaken for tuberculosis or fungus disease or other diseases until it is too late. In order to make a diagnosis early we must be cancer of the lung conscious. If a cough persists and the sputum is negative for tuberculosis or fungi, it becomes our duty to resort to the sources from which we can obtain aid, the bronchoscopist and the radiologist, particularly the bronchoscopist, because not only can he visulize a small lesion but he can also do a biopsy.

The x-ray appearance of primary carcinoma of the lung is usually a well defined "hilar shadow." At times the shadow represents not the tumor itself but the area of atelectasis produced by the obstruction of the bronchus. There are times, when the tumor has been present for a long period, that we get a picture of an infiltrative process involving the lower portion of the lung field on one side. There may even be present a pleural effusion which on aspiration yields a straw colored fluid which when centrifuged and stained reveals typical cancer cells. Such cases are already inoperable. It is surprising how long some of these cases survive after metastases have occurred.

Since surgery at this stage is inapplicable deep x-ray therapy offers some palliative hope. X-ray must not at the present time be looked upon as primary method of treatment for carcinoma of the lung.

Surgery at the appropriate time offers hope for cure. Recent reports are encouraging in cases where pneumonectomy have been done.

Patients with cancer of the breast continue to present themselves late.

Surgery offers the best hope for cure. Selection of cases must be based on adequate study of the patient for evidence of metastasis. No case should be accepted for radical operation unless x-ray evidence is at hand that the disease has not already involved the chest or the bony skeleton.

In a recent survey of 50 cases of carcinoma of the bowel in Touro Infirmary during a five year period, only 39 were considered to be operable before operation. At operation 21 of the 39 were found resectable. In the other case there were already present metastases.

There are certain facts which stand out clearly:

I. That in the majority of cases the diagnosis was made too late for actual radical surgery.

2. In many of these instances the manifestations of obstruction—evidence of an impending dissolution—are the first symptoms which aroused the suspicion of the attendant.

We must be continuously on the alert for carcinoma of the bowel if we are to make the diagnosis early enough to help the patient.

Rectal bleeding should be a danger signal. The cause must be sought. Do not be satisfied with a diagnosis of fissure or hemorrhoids. Do not be satisfied with the finding of ameba in the stools. Amebiasis is present in about 10 per cent of our population. Carcinoma of the rectum or sigmoid may be present in association with amebiasis. We cannot afford to be misled by the report of the finding of ameba in the stool.

Four of the cases in the 50 studied were considered to be amebic infestations for a period varying from six months to one year before the actual cause of the bleeding was found. Digital examination will in most instances of carcinoma of the rectum reveal either the presence of an ulcer, adenoma, in the later cases, stricture formation.

Stricture of the rectum thus found may not be due to carcinoma, but may be due to lymphogranuloma inguinale. The stricture of lymphogranuloma inguinale definitely differs from stricture of carcinoma in the following respects. In lymphogranuloma inguinale the mucous membrane is smooth, rarely is there an ulcer, the constriction is due to perirectal thickening and the involvement of the muscle layer which is secondary to infection of Gerotas' gland.

In all strictures in which lymphogranuloma inguinale is suspected the Frei test should be made. This, as you know, is an intracutaneous test made from the antigen obtained from known cases of lymphogranuloma inguinale where there has not been an associated syphilis or tuberculosis. The best available antigen, however, is obtained from monkeys which have been infected after the work of Hellerstrom.

In strictures due to carcinoma there is an ulceration of the mucous membrane and a thickening due to infiltration of the walls of the rectum itself. If the stricture is almost annular it is evidence that the carcinoma has been present from 12 to 18 months.

Proctoscopic examination should give a great deal of information. Before proctoscopic examination is done, however, a digital examination should be made because if by digital examination one finds a stricture which will not admit a finger, attempts to pass a proctoscope up to and through the stricture may produce a perforation.

This last statement is further proof of the great value of information to be obtained by simple digital examination.

Let us remember that carcinoma of the rectum is a local disease in the early stage. Let us further remember that rectal polyps are the most common predisposing factor in carcinoma of the rectum. It has been said by Hardy that 40 per cent of polyps become malignant. Others have stated that the majority of carcinoma of the rectum arise on a basis of preexisting "benign adenomata."

Nystrom states that 63 per cent of the cases of carcinoma of the large intestine originate on a basis of polyps.

Polyps are more common in the large intestine than in the small intestines.

These statements should certainly make us desist from thinking of polyps and adenomata of the rectum and large bowel as benign conditions.

Bloody stools, tenesmus and pain are important clinical manifestations. Intelligent use of the x-ray plus a rectal examination should enable us to make an early diagnosis in the majority of cases.

When carcinoma of the right side of the colon is suspected the predominate symptoms are weakness, loss of weight, marked anemia, right sided pain and change in the bowel habit.

Weakness, weight loss and marked anemia are secondary to the blood lost through the large ulcerating area in the right half of the colon.

The late symptoms of carcinoma of the left side of the colon are those of obstruction and the finding of blood in the stool.

The use of the barium enema and the double contrast x-ray examination will give us valuable information which should be sought early in cases where there is the least suspicion of possible malignancy of the bowel.

Just as amebiasis has confused, in the minds of some, the nature of the condition in carcinoma of the rectum, so has anemia, so often found in ascending and transverse colon carcinoma, caused medical men to treat patients for pernicious anemia.

Adequate surgery in the early stage offers the only hope that we have.

Statistics on large series of cases of carcinoma of the bowel are none too encouraging. Only a small percentage of the actually existing cases of carcinoma of the large bowel ever reach the surgeon in an operable stage.

The one stage abdomino-perineal operation after the plan of Ernest Miles is, I believe, the best procedure in operable cases.

The above statements indicate that by more energetic early investigation more cases of carcinoma of the bowel will reach the surgeon at a curable stage. Late diagnosis and operation is comparable to a penal sentence for the balance of a miserable existence.

While on the subject of carcinoma of the bowel let me remind you that it may be the unhappy lot of the doctor who has referred the case to the surgeon to have the care of the permanent colostomy after the patient returns home. Many of these patients can lead a fairly comfortable life if they are taught the proper care of the colostomy. Each morning the bowel should be thoroughly irrigated with a large rectal tube. After the bowel has been thoroughly irrigated and evacuted, the colostomy bag is then put in place. These patients often do not have any incontinence, therefore, they are not prevented from going about their daily duties.

Carcinoma of the stomach. In a recent survey of 20 cases of carcinoma of the stomach, admitted to Touro Infirmary for one year period, we found that very few of them had reached the surgeon sufficiently early to permit of radical resection. Many of the patients were found to have extensive metastases to the lymph nodes and liver at the time of exploration.

The so-called classic symptoms and signs of carcinoma of the stomach are not always present. Even when the radiologist is of the opinion that the carcinoma is operable, metastases are found, making it impossible to do radical surgery.

Biopsy and frozen section are not to be relied upon for diagnosis. Errors and differences of opinion among pathologists, as to the nature of the specimen presented to him, as well as the fact that carcinoma may be found in one piece of tissue and not found in another, makes the rush section an undependable criterion.

In many cases surgery is futile except as a quickening process, particularly if there is a palpable tumor present.

Surgery to be valuable to the carcinoma patient must be done in suspicious cases by a surgeon competent to recognize gross pathology.

1522 Aline Street.

Hospital Insurance*

C. E. BOYD, M.D.

AMORY, MISS.

Some members of the profession are taking the attitude that insurance of this type is a foregone conclusion, and that any further discussion is unnecessary, and that the only thing that can be done, will be to agree with those favoring the plan and work out some manner of application that will in some degree be satisfactory. But the question has so many different angles, and is so far reaching in its effects, that formulating logical reasons favoring the plan becomes a very difficult matter. First, grave fear of any plan should enter our minds at the mention of any such radical change. The group most interested in the matter are those who are interested in hospitals. There is no question of doubt as to the correctness of this statement by anyone who has kept his ear to the wind for the past few years. Therefore it behooves the great body of men who are doing general practice, and who have no connection with hospitals, to give the matter MOST serious thought, before giving sanction to a matter that when such sanction is once given, the control passes from our hands, where it rightly belongs FOREVER.

The argument that State Medicine will be prevented does not hold true, the advocates of this plan know this for the very important reason that only those who could pay their medical and hospital bills, will be insured. The great army of indigents, and near indigents, will be left out in the cold.

State Medicine might be preferable, since some thought at least is taken of the poor and needy, even by those who advocate state medicine. The hospital idea, I think by our sanction, has gone entirely too far. Those in charge of hospitals, with our help, have imbued the public mind with the idea, that they must go to some hospital to receive proper or adequate treatment. This, except in certain cases, is far from being true. There is a vast deal of difference in the things that people think they need, in the way of medical care, and that which they actually do need. Hospital insurance will in no way solve the question, and some plan must be evolved that will take care of those who absolutely cannot pay, leaving those who can pay insurance, to pay their own bills, as they have always done. If all of the people are to be treated, and it is only reasonable and right that they should, they cannot by any such insurance plan, as is proposed, be treated in hospitals and by doctors near hospitals. If the much talked of adequate care is to be given to all of the people, some members of the medical profession must remain in the small towns, and country districts, for the very simple reason that something more than sixty per cent of the population is still rural, and very rural, some living as much as thirty miles from any hospital or doctor. The average doctor in the small places and country districts, by practicing the most rigid economy can barely get by with enough to keep soul and body together.

It seems imminent that some change must be made. Then if we change our plans, with any promise of bettering ourselves and at the same time keeping the needs of humanity in view, as we have always done, we must have a better plan than the one proposed as hospital insurance. Our thinning ranks, except in cities, attest the fact that a better and a different arrangement must be made. Instead of the large hospitals who are trying to commercialize and maintain themselves by insuring those well able to pay, and taking no thought of the indigent, we must have more small hospitals or even clinics, that can be kept just as efficient and at much smaller cost than the larger hospitals. Nor must these be forced out by standards set by the larger hospitals. I do not mean that everything in the way of treatment shall de done in these smaller places. We have plenty of good surgeons and hospitals for the major things that happen now.

---

*Read before the Northeast Mississippi Thirteen County Medical Society at Aberdeen, Miss., Sept. 21, 1937.

The country needs good, well grounded, sound thinking general men far more than it needs surgeons and specialists. We must realize that all cannot be surgeons, or do only special work, neither is it expedient or necessary that such should be the case. Good general men are needed far more than the very poor surgeons and the type of specialists that some of us would make. The general man, who is honest, and keeps abreast can treat successfully a majority of the cases coming to him, and he can refer necessary cases as he has always done.

If we are to guard the interests of humanity, public health and prevention of disease and not serve the selfish interests that threaten, we must arouse public sentiment to such a degree that our legislature will make sufficient appropriations to care for the needs of every real indigent. Why should this not be so, when appropriations can be secured for every conceivable thing on earth, except the treatment of the poor and needy when sick or injured, and the support of schools? Give us the necessary appropriations to care for the support of small hospitals, based on the number of legitimate patients handled, and controlled strictly by the profession, and leave the well-to-do to care for themselves, as is only right for them to do. Now if the hospitals, controlled in many instances by lay people, go out and insure those who can pay their medical and hospital bills, leaving only the indigent, then what are we to do? There are only two solutions, **quit outright** or move. If we move, and fail to obtain some hospital connection which may be very difficult for the man who has been out in general practice for a number of years, affiliation will be next to impossible. If the man in the rural districts and small places are forced out, what happens to the large army of indigents and people who cannot insure? They are left helpless in so far as medical care is concerned. Furthermore, insurance is concerned with the treatment of the sick, or at least, in the insurance they are able to pay, and takes no thought of public health or prevention. This important part of medicine will be sadly neglected, if not entirely abandoned in most instances.

The plan might have some semblance of reason if applied to the large towns and industrial centers, but cannot in any way be made satisfactory, for the large part of the population who live in small towns, and country districts, and whose means are necessarily limited to the last degree. The quality of service to those sick has been lowered in every county on earth, trying such plans, and very greatly lessened interest shown, by those in charge. If a plan of this kind shall be adopted, many things that we find necessary for the patient, when he can pay his own bill, will soon be considered entirely unnecessary under the insurance plan. The intimate bond that has bound doctor and patient, since the mind of man runneth not to the contrary, will be forever gone, and things done in a routine and a haphazard manner. Hospitals are necessary and should be a convenience to those sick, and to the doctors and nurses who handle them, and should be under control of the medical profession. There can be no reason for the relinquishment of the control of hospitals to selfish interests, and to the doctors who are willing to serve such interests. The management should be solely in the hands of the profession, in stead of the profession being governed by the hospital or the selfish interests who control the hospitals. The plan is wholly mercenary, and financial gain the object, intended to benefit hospitals, lay people, who are interested in hospitals, and those doctors in charge of hospitals, or who are hoping for hospital alignment. Those advocating the plan can by no stretch of imagination, delude themselves into believing, a plan of this nature, best for those sick, or for a majority of the doctors who treat them.

Even state medicine, condemned by all of us, with all of its evils and disadvantages, takes some cognizance of the needs of the lower classes. The statement that the insurance plan shall be non-profit bearing, is an evasion of the truth, and the statement, a travesty on the intelligence of any man, or group of men, to whom such statement is made. Let the state association once give its approval to such a plan, then one thousand and one, if not ten thousand and one, way of evasion will be found. There is no logical reason under Heaven, why organized medicine should go into a furor of excitement and be swept off its feet, by an imaginary alarm, spread by propagandists and those whom they have succeeded in being able to alarm. Sad will be the day when the medical profession, swayed by the influence of selfish interests, gives sanction to any plan, for the treatment of the sick whose rules and regulations, are largely governed and administered, by lay people. That day, marks in *red letters* on the scroll of time, the deterioration of the noble unselfish service of the *great* in medicine, for the benefit of suffering humanity. Organized medicine will have surrendered to the selfish interests forever, all that has been hoped for, and much that has been gained. Heaven, grant that *this* may not happen.

Rocky Mountain Spotted Fever In Mississippi
A Case Report

V. B. HARRISON, M.D.
Holly Springs, Miss.
JOHN C. CULLEY, M.D.
Oxford, Miss.

Rocky Mountain spotted fever, known under numerous colloquial names since 1849, was affirmed as a disease entity in 1899 by Maxcy. Ricketts in 1906 proved that the disease was transmitted by the wood tick, *Dermacentor andersoni.* He also described the general characteristics of the causal agent. In 1919 Wolbach described rackettsia-like microorganisms in the characteristic lesions in man and laboratory animals and named the parasite *Dermocentroxemus.* In 1923 Parker proved that the rabbit tick, *Haemaphysalis leporis-palustris,* was a natural carrier of the virus. Dyer, Rumreich and Badger in 1931 described an eastern type of spotted fever and proved that the eastern type and western type gave a cross immunity. They have shown that the dog tick, *Dermacentor variabilis,* is the carrier of the eastern type of virus.

The eastern type of spotted fever is fairly common in the east-central states and several cases have been reported in states adjacent to Mississippi. No case of spotted fever has been officially reported from Mississippi although Dr. George Riley of the Mississippi State Board of Health studied three typhus-like cases in 1933 which he diagnosed as spotted fever.

We wish to present herewith a confirmed case of spotted fever which occurred in Marshall County, Mississippi.

CASE REPORT

Mrs. M. S. white, female, age 41 years, married, who resides near Waterford, Mississippi, injured her right index finger on a fractured bone while dressing a wild rabbit about one week before Christmas, 1936. There occurred a local reaction, presumably of a pyogenic nature, at the site of the injury. Associated with it, there was some local tenderness and pain and, on Christmas Day, the patient used a sewing needle to pick at the lesion and she obtained what she described as "black bloody stuff." Afterwards, on the same day, she dressed another wild rabbit. The following day, December 26, she developed local signs and symptoms of an acute infection with lymphangitis which extended up to her right elbow, and also some tenderness in the right axilla but there was no definite enlargement of the right axillary group of lymph nodes.

At this stage of the disease, the patient consulted a local physician who incised the finger lesion but obtained no pus. The same day, the patient developed generalized symptoms with an excruciating headache of a post-orbital nature and a high fever. The patient's condition was reported to the former local physician who, although he did not see her at the time, made a diagnosis of malaria and prescribed for her. The patient's symptoms grew worse and she developed a marked nausea and vomiting and a semi-delirious state. On December 30, she was seen by another local physician who made a diagnosis of influenza and prescribed sedatives. On December 31, members of the family noticed the appearance of a purplish, macular eruption on the patient's lower extremities which rapidly became generalized. The second local physician on being notified of the new developments, and presumably on the basis of the past history, made a tentative diagnosis of tularemia and obtained a specimen of blood which was submitted to the State Hygienic Laboratory for examination. On January 5, before the laboratory report had been received, the patient was admitted to the Oxford Hospital, Oxford, Mississippi, with a tentative clinical diagnosis of tularemia. A member of the medical staff made a cursory examination of the eruption and made a tentative diagnosis of variola, whereupon the patient was isolated. At this time the laboratory report had been received and was negative for tularemia agglutination.

On January 7, 1937, the patient was seen jointly by Drs. Culley and Harrison in consultation. When observed on that date, the patient presented a picture of marked prostration, semi-stupor and a fever of 103°F. The body was covered with a lichenoid, brawny eruption with a varioloid distribution, being marked on the face, extensor surfaces of the extremities and thinly scattered on the abdomen, chest and back. There was no tendency to vesiculation nor pustulation. The tentative diagnosis of variola was replaced by a tentative diagnosis of either atypical tularemia or a typhus-like disease. A second blood specimen was obtained and a request made for a second tularemia agglutination test, a Weil-Felix agglutination test and a blood culture. The latter laboratory tests were nagative except foor the Weil-Felix reaction which was positive in a titre of 1:320. On January 13, the rash had almost disappeared and the patient was discharged to go home.

On the basis of the history and laboratory tests, the final diagnoses are: typhus fever, Brill's disease and spotted fever. The Weil-Felix reaction does not differentiate these diseases. Typhus fever and spotted fever can, however, be differentiated by making protection test studies on laboratory animals using the convalescent blood serum from the case suspected of having had the disease. Therefore on January 29, the blood specimen was obtained from the patient and sent to Dr. R. E. Dyer, National Institute of Health, United States Public Health Service, Washington, D. C. On April 8, 1937 the following report was received from Dr. Dyer: "We have just finished our test on the serum of Mrs. M—S— for protection against the virus of Rocky Mountain spotted fever. We find that this blood specimen gives excellent protection against the virus of spotted fever when tested in guinea pigs. From the results of this test and from your positive Weil-Felix and the clinical history, I think we are safe in concluding that this case was, in all probability, one of Rocky Mountain spotted fever."

DISCUSSION

There are several features of this case reported which are note-worthy. First, there can be but little doubt that the disease was contracted locally and such would prove that spotted fever is endemic in the small animals of Marshall County and, presumably, Northern Mississippi. Secondly, an isolated case such as this one would suggest two possible explanations, namely, the link between the animal host and man is weak and human disease occurrance is rare or, the human manifestation of the disease is mild and many cases occur but are misdiagnosed. Both explanations are feasible if the rabbit tick is considered to be the transmitting agent. The rabbit tick does not naturally attack man, and human disease caused by rabbit tick passage of the virus is mild. It is advisable to give this epidemiological problem further consideration.

In considering the mode of infection in the present case, there are three possibilities, namely, (1) the direct inoculation of infected blood or tissue when the rabbit's bone fragment pierced the patient's finger, (2) a thick, rabbit or dog tick, when crushed contaminated the wound or (3) the patient may have been unconsciously "bitten" by an infected dog tick, either *Dermacentor variabilis* or *Rhipicephalus sanguineus.*

The reported case presents a fairly typical clinical picture of spotted fever. This disease must be differentiated in its early stages from the acute exanthemata such as smallpox, chickenpox and early measles, also from meningococcal meningitis, typhoid fever and dengue fever. The symptoms and rash are the confusing points in these diseases. The prodromal stage of spotted fever may be confused with malaria and influenza. A careful study of the case and the use of the Weil-Felix reaction will enable one to differentiate the case. The chief difficulty is to differentiate spotted fever from typhus fever. This can be done clinically by observing the distribution of the eruption and by the use of the protection test studies. Spotted fever usually has a centrifugal or smallpox distribution of the rash whereas typhus fever has a centripetal or chickenpox distribution of the rash.

CONCLUSION

This case is reported to establish the endemicity of spotted fever in Mississippi and to acquaint the medical profession with a disease potentiality in the state. It is hoped that this report will help other physicians to find and report other cases of spotted fever in Mississippi.

BIBLIOGRAPHY

Badger, L. F., R. E. Dyer and A. Rumreich: An Inspection of the Rocky Mountain Spotted Fever," Public Health Reports, 46:9, 1931.

Badger, L. F.: "Rocky Mountain Spotted Fever (Eastern Type)," Public Health Reports, 47:53, 1932.

Cummings, J. G.: "Rocky Mountain Spotted Fever Invades the East," **Southern Medical Journal** 27:783, 1934.

Dyer, R. E., L. F. Badger and A. Rumreich: "Rocky Mountain Spotted Fever (Eastern Type)," Public Health Reports, 46:24. 1931.

Dyes, R. E.: "Diseases of the Typhus Group in North America," **Canadian Public Health Journal** 28:1, 1937.

Milam, D. F.: "Rocky Mountain Spotted Fever in North Carolina," **Southern Medical Journal,** 27: 788, 1934.

Parker, R. R.: "Certain Phases of the Problem of Rocky Mountain Spotted Fever," **Archives of Pathology,** 15: 398, 1933.

Riley, George E.: "Personal Communication."

Rumreich, A.: "The Typhus and Rocky Mountain Fever Group," **Journal of the American Medical Association,** 100:331, 1933.

Rumreich, A., R. E. Dyer and L. R. Badger: "The Typhus-Rocky Mountain Spotted Fever (Eastern Type)," Public Health Reports, 47:53, 1932.

Protamine Zinc Insulin

HENRY B. GOTTEN, M.D.
MEMPHIS, TENN.

Since the introduction of protamine zinc insulin in 1936 by Hagedorn and his associates, the treatment of diabetes has been almost completely revolutionized. This new compound, by its slow, long continued effect, precludes extreme fluctuations in blood sugar, reduces or eliminates glycosuria and acetone excretion, and thereby affords an almost normal carbohydrate metabolism. Given alone or in conjunction with regular insulin, it has proved efficacious for patients of every age and with every degree of diabetes. Moreover, the fact that by this treatment the disease may be more easily, safely, and comfortably controlled with only one or two daily injections, rather than the three or four doses often required of regular insulin, has caused protamine insulin to be welcomed by thousands who formerly were reluctant to seek relief.

Among those who have carried out studies in the management of diabetes with protamine insulin are, in addition to Hagedorn et al, Campbell, Hassen, Joslin, Rabinowitch, Root, Sindoni, Sprague, and Wilder. Although the methods of administration practiced by these observers differ in some respects, all agree that the new compound offers superior advantages and advocate its use for practically every patient. The only exceptions are those who have had the disease for several years and have accustomed themselves to multiple injections of regular insulin and adjusted their activities accordingly.

The institution of protamine insulin (protamine zinc insulin) treatment should be undertaken with especial care. Qualitative tests of the urine for sugar should be made three times daily. In addition, some writers regard as essential five blood sugar estimations daily to determine carbohydrate and dextrose balances and preclude both reactions and glycosuria. Rabinowitch, however, relies upon a twenty-four hour sample of urine, believing that, in the absence of such conditions as arteriosclerosis, chronic nephritis, infection, repeated dietary indiscretions, and diabetes of long standing, all of which raise the renal threshold of glucose, postprandial hyperglycemia will result in glycosuria and may be readily detected without periodic blood sugar determinations. To carry out these procedures, the usual practice has been to place the patient in the hospital for a period of two or three weeks, but the author has been able to simplify some of this treatment and reduce materially the period of hospitalization. If the patient is well acquainted with his diabetic management, it may not be necessary that he enter the hospital at all.

Protamine insulin therapy must be instituted gradually. If the patient has never had insulin, a satisfactory procedure is to begin with 10 units and increase 10 units daily until the necessary amount is reached. This may be as high as 50 or 60 units. In the transition from regular insulin to protamine insulin, if regular insulin has been given in divided doses, one may safely begin by giving the usual morning dose of regular insulin and substituting protamine insulin for the total of subsequent doses. This is also the procedure when protamine and regular insulin treatment are to be combined. When only one daily injection of regular insulin has been given, it is advisable to substitute protamine insulin for approximately two-fifths of the previous dose of regular insulin on the first day, on the second day to administer four-fifths of protamine and one-fifth of regular insulin, and on the third day, a full dose of protamine insulin. This technic should prevent glycosuria. To obtain the full effect of protamine insulin, from three to seven days are generally required.

The diet is watched and adjusted as necessary to counteract the extremes in blood sugar curves. If the quantity of both carbohydrates and proteins is curtailed at the institution of treatment, the urine will sooner be rendered sugar free. When this is accomplished, the standard diet may be resumed, and in many cases may even be increased over that previously taken. Further, the diabetes may subsequently be easily controlled by the increased diet and a gradually reduced amount of protamine insulin.

Rabinowitch has obtained excellent results with high carbohydrate, low caloric diets. Campbell, on the other hand, has found that low carbohydrate, high fat diets permit more successful management with a single large dose of protamine insulin.

As has been stated, there is some difference of opinion as to the most satisfactory method of administration in the majority of cases. Hagedorn favors a combined treatment of protamine and regular insulin, the protamine compound to be given in the evening and the regular insulin in the morning. He states that, because of the most steady course of the blood sugar at night and its more erratic course during the day, the smoother and more protracted effect of protamine insulin is especially useful at night. Also, when regular insulin is given in the morning following protamine insulin in the evening, the regular insulin usually will be much less violent in its effect, since it is given while the organism is in fairly good balance and the blood sugar is low. By this means, one can generally avoid the larger fluctuations in blood sugar throughout the day. The diet is apportioned so that the smallest meal is the last of the day, and the lighter burden thus placed upon the protamine insulin; otherwise, the slow action of the compound may cause considerable glycosuria in the early part of the night. This danger, however, may be obviated by giving the protamine insulin in the middle or late afternoon. On the contrary, if the patient is insulin sensitive, so great a change may be produced by giving protamine insulin in the evening that the fasting blood sugar will drop to normal or below. In this event, it will often be necessary to reduce the morning dose of regular insulin by 10 to 20 per cent to prevent a reaction. Still other patients, with better powers of utilization, may require a smaller amount of protamine insulin than of regular insulin.

Hagedorn also found that one injection of protamine insulin every twenty-four hours was sufficient to control mild forms of diabetes. In these cases a rather larger amount of the compound was given in order to meet the insulin requirement and avoid the risk of hypoglycemia.

Sprague and his co-workers at the Mayo Clinic were prompted to try giving a single morning dose of protamine insulin, with or without regular insulin, by the observation that the action of protamine insulin was prolonged for more than twenty-four hours, that much of its effect does not take place until after four to six hours, and its maximum effect is not reached until after fourteen or sixteen hours. When the disease is brought under control and the fasting blood sugar is normal, they found that the rise following breakfast frequently is not sufficient to provoke glycosuria. With the morning dose they give the smallest meal of the day at breakfast time, which of course tends to minimize the subsequent blood sugar and obviate the necessity for regular insulin. Should the glycosuria persist, however, the use of a small amount of regular insulin is continued.

Sprague emphasized the fact that, although single large doses of protamine insulin apparently are safe in severe cases when the patient takes his food, it is important that he get the food. Otherwise, periodic administrations of dextrose would be indicated for the remainder of the ensuing twenty-four hours. Joslin brought out this same idea. He is of the opinion that, since the action of protamine insulin is slower, longer, and less vigorous than that of regular insulin, a single daily dose before breakfast would with difficulty render utilizable the average diet containing 150 grams of carbohydrates. Meals farther apart, over eleven or twelve hours, supplemented by 5 to 15 grams of carbohydrate between and at bed time might solve the problem. In other words, with fewer injections of insulin, Joslin advocates more frequent supplies of food. He regards this as fundamental.

A more rational treatment of severe cases seems to be a single dose of protamine insulin supplemented by regular insulin, either evening and morning respectively, or at the same time in the morning.

Rabinowitch was able to control diabetes in the majority of cases with only one daily injection of protamine insulin, and with an amount less than had previously been required of unmodified insulin. He attributed this to the increased sensitivity imparted by the zinc. He also found that 100 units of the compound reduced the blood sugar level no lower than 50 units, but with the larger amount the reduction not only took place rapidly, but the level remained low for thirty-six hours or more. He regarded this as an explanation of the efficacy of a single large daily injection, as well as of the successful use of protamine insulin in severe acidosis.

Sprague was one of the first to employ protamine insulin in the treatment of acidosis. He practiced giving a single dose of 50 units followed by regular insulin, having learned that the protamine compound tides over the periods of ineffectiveness of regular insulin, which apparently are lengthened by acidosis, and thus insures a continuous insulin action. Similarly, in cases complicated by acute infections, which also shorten the period of effectiveness of regular insulin, protamine insulin was found helpful as an adjunct to regular insulin.

Rabinowitch went farther and employed protamine exclusively succssfully to combat acidosis. He accompanied the injections by complete withdrawal or a sharp reduction of food until the blood sugar was under full control. Both the amount of protamine insulin used and food allowed were guaged by the severity of acidosis. He was equally successful with protamine insulin alone in the treatment of such conditions as severe acidosis with gangrene of the foot and spreading cellulitis, severe diabetes in the elderly, with complications of cardiovascular disease and hypertension, and diabetes complicated by hypothyroidism and thyroid therapy.

Sindoni agrees with Sprague that combined insulin treatment is safer and more effective for patients with acidosis or in coma, as well as for those with complications of infection, advanced sclerosis, and other disabilities, including those requiring surgery.

The writer has found Hagedorn's method of giving protamine insulin in the evening and regular insulin in the morning suitable in the majority of cases, particularly for patients with severe diabetes. With this procedure, he has not noticed any material difference in the effect of reducing the carbohydrates of the evening meal, and therfore allows his patients to take three meals of equal quantity. Further, because of its protracted action, it seems to matter little whether the dose of protamine insulin is given before or after supper. It is essential only that the injection be made at such time as will permit the maximum effect of the insulin to take place at the usual peak of the blood sugar. In a few instances it has been necessary to give a second dose of regular insulin in the middle of the day.

Milder forms of diabetes may be effectually controlled with only one dose of protamine insulin unless the patient is insulin sensitive, as is often true of children. In the later event, the combined therapy is most advantageous.

For the management of acidosis and complicated cases, the author prefers to follow the method described by Sprague.

A few precautionary measures should be observed in the administration of protamine insulin:

(1) The compound should not be shaken violently. Inverting the container gently and repeatedly for a moment before use will suffice for proper mixture.

(2) When regular insulin and protamine insulin are given at the same time, it is safer to use separate syringes. If the same syringe is employed, however, the regular insulin should be given first in order that it may not be contaminated with the residue of the protamine compound and its effect thereby modified.

(3) Injections should be made at separate sites. Whether they are given before or after the meal is not of material importance.

(4) Since protamine insulin promotes a more nearly normal carbohydrate metabolism, patients under this treatment who take undue exercise must guard against reactions by the ingestion of an extra amount of carbohydrate at hourly intervals. This is in contrast to the patient treated with regular insulin, who must reduce the dosage of the insulin during unusual exertion.

(5) Before patients are allowed to carry out their treatment at home, they should be thoroughly familiar with the details of insulin preparation and injection, with dietary management, and with the method of urinalysis. Finally, they should be taught the prodromes of reactions and how to combat them.

Aside from the slower, more physiologic action of protamine insulin and the fact that it is effective in practically every type of patient — in the old and the young; in those with mild, moderate, or severe diabetes, with or without complications; in the insulin sensitive and insensitive, as well as those whose response is normal — it has other attributes worthy of discussion.

Hanssen reported that the enlarged liver, which is a common finding in youthful diabetics, is often reduced under protamine insulin therapy.

Injection of protamine insulin is painless and seldom produces even a slight local or protein reaction.

The use of protamine insulin relieves the patient of the embarrassment and inconvenience of several daily injections and thus permits more latitude of activity.

With protamine insulin, hypoglycemic reactions are fewer and less violent than with regular insulin. The symptoms of reaction, headache and nausea, appear gradually, allowing patients ample time to take some form of carbohydrate as a preventive.

The prolonged action of protamine insulin affords security against the danger of hyperglycemia and acidosis.

The psychic effect of this treatment has been observed. Patients are not troubled by nervous and emotional upsets caused by undulations of blood sugar, they feel happier and stronger, and acquire a sense of general well being. Many of them gain in weight, due no doubt as much to release from worry and fear as to improved carbohydrate tolerance or an increase of diet.

The efficacy and simplicity of treatment with protamine insulin have led patients to take a much greater interest in their treatment and to follow it more accurately. As a consequence, the results are materially better.

It is apparent that the more extensive the experiment with protamine insulin, the more numerous its advantages are found to be. One may reasonably assume, therefore, that further studies with this compound will serve to bring out still greater improvements in the method of management of diabetes. The acclaim now accorded protamine insulin on every hand is fully justified by the successes already achieved with its use.

BIBLIOGRAPHY

1. Campbell, W. R., Fletsher, A. A., Kerr, R. B.: Protamine Insulin in the Treatment of Diabetes Mellitus. Trans. Assol. Am Phys., 51:161, 1936.
2. Hagedorn, H. C., Jensen, B. N., Krarup, N. B., and Woostrup, I.: Protamine Inslhinate. J.A..M.A., 106:177, (Jan. 18), 1936.
3. Hanssen, : Enlargement of the Liver in Diabetes Mellitus. J.A.M.A., 106:914, (March 14), 1936.
4. Joslin, E. P.: Protamine Insulin and Its Advantages. New Eng. J. Med., 215:1166, 1936.
5. Joslin, E. P.: Protamine Insulin. J.A.M.A., 109:-497, (Aug. 14), 1937.
6. Rabinowitch, I. M., Fowler, A. F., and Corcoran, A. C.: Further Observations on the Use of Protamine Zinc Insulin in Diabetes Mellitus. Canad. M. A. J., 36:111, 1937.
7. Root, H. F., White, Priscilla, Marble, A., and Stotz, E. H.: Clinical Experience with Protamine Insulinate. J.A.M.A., 106:180, (Jan. 18), 1936.
8. Sindoni, A., Jr.: 108:1320, (April 17), 1937.
9. Sprague, R. G., Blum, B. B., Osterberg, A. E., Kepler, E. J., ad Wilder, R. M.: Clinical Observations with Insulin Protamine Compound. J. A. M.A. 106:1701, (May 16), 1936.
10. Wilder, R. M., and Wilbur, D. L.: Diseases of Metabolism and Nutrition; Review of Certain Recent Contributions. Arch. Int. Med., 59:329, 1937.

American Medicine—Expert Testimony Out of Court*

GEORGE L. BROWN, B.S., M.D.
TUPELO, MISS.

The American Foundation's report "American Medicine" contains the views of approximately 2200 medical men throughout the country on the present status of medical care and the changes that need to be made of it. Every division of medical science is represented by the contributors to this symposium, and 38 per cent of the contributors are, by their own designation, general practitioners. The report's comprehensive analysis of the medical need and of medical practice takes into account not only the crowded medical centers but also, so to speak, the forgotten areas—the deep south, the mining regions, the agricultural stretches of the far west.

It is in order to re-state at this point the question put to leading medical men by the American Foundation, and the reason for putting it. Why did medical men, who are not great letter writers, respond so freely to the Foundation's invitation to discuss frankly conditions of medical practice?

The American Foundation felt that the whole question of the organization of medical care in this country had been made the subject of unprofitable controversy. As the editor of the report stated the situation in the original letter to the doctors, previous discussions had perhaps produced "more heat than light." The Foundation had no program of its own, no solution, no propaganda to put over. It felt that the first thing needed was not "solutions" but a real analysis of the problem by people that know it at first hand. The Foundation was not assuming that doctors "know all the answers." It recognized that the problem of getting better medical care to more people at lower rates is a *social* and *economic* as well as a *medical* problem. The Foundation felt, however, that doctors have certainly a contribution to make to the analysis of the problem, perhaps to the solution of it, and that their contribution had not yet been invited. The Foundation therefore addressed to a number of leading medical men in every State, the following question: "Has your experience led you to believe that any radical change in the organization of medical care is in order? If so, in what direction? If you do not think that radical change is needed, what evolutionary possibilities would you stress?" As the New York Times has pointed out, the list of the men who replied to the question reads like a Who's Who in American Medicine. The full list is published in the report. It speaks for itself.

Most of the Contributors Recognize the Existence of a Grave Problem

There are among the "contributors," naturally enough, a limited number who are fairly well satisfied, medically speaking, with the world around them. They see nothing particularly out of point in their own community or in their own practice, and they therefore conclude that the advocates of change are chiefly busy bodies, professional reformers and general new-dealers. Their real belief is that if the medical men of the country are just let alone the normal processes of evolution will accomplish any change that is needed.

The majority of the contributors, however, believe there *is* a problem. They believe, indeed, that there are at least three problems: first, that a considerable part of the population does not receive anything like adequate medical care. Secondly, that the costs of modern scientific medical care are frankly beyond the pocket books of most of the population. Thirdly, as to the medical care itself, that "the best is not yet good enough." However greatly, medical men differ on other matters it is quite clear that the most competent of them seem to feel that medical practice, including their own, is by no means what it could be, and that

---

**American Medicine—Expert Testimony out of Court. Published by the American Foundation, 565 Fifth Ave., New York City. The 2 volumes,* $3.50.

there are very definite things that can be done to *produce better medicine.*

It is recognized that these three problems have performed inter-relations. Dwellers in a State like Mississippi have reason to know that the problems of the distribution and cost of medical care and the problem of the *quality* of medical care, while they should not be confused, must nevertheless be dealt with as related situations. Among the more profound observers writing in AMERICAN MEDICINE the weight of opinion is that a problem so complex will require, for solution, the *cooperation of several agents,* notably the medical profession and government. And the most important question is, of course, how far the government should enter into the picture.

In the welter of conflicting opinions a few points stand out as to which there is relative agreement. The scope of the present article is too limited to admit discussion of them all, but it is possible to select several that have been of especial interest to this community. Among these are, first, the very general agreement that the care of the indigent sick is a logical charge upon tax funds; secondly, the feeling that the tax funds should be local to the utmost possible degree, with State aid to the degree that is needed, and with federal aid for situations which the State and local funds or authority cannot handle; and, thirdly, the feeling that one of the situations that, at present, cannot apparently be dealt with by the State and community is the problem of medical care in certain sparsely populated communities.

Place For Federal Functioning?

Even those most afraid of a paternalistic exercise of the government function, incline to feel that these "forgotten areas" call for a percentage of federal funds and a degree of federal initiative. There is no assumption, however, that federal aid should be unconditional, or that it should necessarily be permanent.

Space does not permit lengthy citation of the "evidence" contained in the report from certain parts of the country, sparsely populated, remote from medical centres, industrially insufficient, without medical resources, but the following brief notes are significant:

A member of the public health service in New Mexico reports:—

"In this state approximately one-third of the people die without consulting a doctor even in their fatal illness. The death certificate says 'no medical attendant' and cause of death is 'unknown!' In six of its thirty-one counties, less than one-quarter of the mothers have medical care in childbirth. In seven of this states counties more than three-quarters of the babies that die have had no medical care."

A Georgia physician testifies:

"Last year there were more than 800 deaths in Georgia without an attending physician."

A surgeon in several southern hospitals observes:

"In many counties surrounding us there is no such thing as a county hospital."

A general practitioner in a small Texas town reports:

"In this county there is a number of small towns or villages which have no resident physician, or if there is one, he is a man about 70 years of age or older. As the older physician dies or retires no one replaces him."

A general practitioner in a Mississippi town says:

"There is a county just east of me that is about thirty-five miles wide and forty miles long that has only five physicians; four of these are over 50 years of age, the other in his forties. The population is 25,000 or 30,000. One of these men lives near the county line and his practice is in two counties; another lives in the corner and his practice lies in three counties. After the death of any of these men their places will not be filled by any young men . . . .

"These people are both white and colored; they are dependent upon the soil for a livelihood. The lumber has been cut and sold; there is no industry from which to look for a steady payroll . . . . "

There are reports in similar vein from other states.

And certain studious observers writing in AMERICAN MEDICINE ask, "Will the conventional recommendations be of any use here? Shall such communities and such groups of the population be urged to solve their medical care problem by 'thrift'? But in order to save there must be something to save from. Is insurance the solution? If so, who is to pay the premiums?" The most vigorous opponents of "paternalistic government," according to American Medicine, will see in certain areas of the country a fit field for governmental functioning and for at least some degree of federal aid.

Rapid Review of the Report's Contents

It is quite clear that in this brief article it is not going to be possible even to outline effectively the contents of this two volume report of some 11 chapters and some 1500 pages. The views and facts referred to above on sparsely populated areas, occur at the very beginning of the report, Chapter 1, which is a comprehensive discussion of the question, "Is adequate medical care now generally available." While the report presents no editorial conclusion, it would be difficult for a fair minded reader after reviewing the facts and the views presented in this chapter, to rest complacently in the view that "adequate" medical care is available to most of the population.

The second chapter discusses the general principles which in the opinion of the medical writers underlie the orgnization of medical care. In this chapter are discussed the relation of the need of medical care to other social and economic needs; the degree to which medical care does, or should, include prevention; the public conception of health as an important if not determining factor; the place of government in the whole conception; the validity of the familiar tenets on the doctor patient relation and free choice of physician; the relative validity of evolutionary and revolutionary methods of change; the *quality* of medical care as the determinant in all planning.

Medical Education, How to Insure Qualification for Practice of the Specialties and of Surgery, Group Practice

The third chapter is a thorough-looking discussion of medical education with special emphasis upon the ways and means of improving the personnel of the medical profession and giving them the training that definitely qualifies them for the work they have to do in the communities in which they are to practice. The fourth chapter discusses the present drift toward specialization, the need of defining preparation for medical practice, particular qualification for undertaking it, and particular experience. Surgery in this chapter is regarded as a specialty, and a great deal of attention is given to proposed ways and means of improving the standards of surgical practice and of limiting the functioning of ill-qualified surgeons. The writers in the report state with entire frankness a rather general belief that there is in the country both too much surgery and incompetent surgery, too many men who gain what surgical competence they do achieve at the expense of the public. The fifth chapter discusses the problem as to whether modern medical science has advanced so rapidly that it is no longer possible for the individual practitioner to function alone and whether, therefore, group practice is indicated, if the benefits of modern medical science are to be made available on any general scale. American Medicine does not, as the Committee on the Costs of Medical Care did, recommend group practice. Here, as elsewhere, the report presents no conclusions. Both pro and con are concretely outlined. While there is thus no conclusive answer to the question whether the group or the individual will be the dominant form of the medical practice of the future, most of the medical men who offer opinions on this subject clearly feel that modern medical science has indeed become too large a field for the individual alone to handle effectively, and that every practitioner neeeds, *in some way,* to depend upon laboratories, hospitals and consultation with his colleagues. This does not mean, however, that every practitioner must be a member of a group; it does mean that every practitioner must have some way of providing the scientific aids to diagnosis not available in his own office; and that every practitioner, as a matter of routine, must consult with specialists in matters not covered by his own clinical experience.

The Place of the Hospital

The place of the hospitals extensively discussed in chapter six, from thhe point of view of the quality of medical and surgical practice in the hospital; from the point of view of the administration and control of hospitals; from the point of view of the cost to the patient. There are entirely definite recommendations for better organization of hospital staffs, for higher principles of selection of the courtesy staff and for the payment, not only of internes, but of staff doctors generally. There is discussion of the moot question of open and closed staffs, the weight of opinion, if there is one, being perhaps that either form of organization can be made to work if administered with integrity. There is a fairly general feeling that a hospital connection is, in the last analysis, necessary for every practitioner, and that when medical practice reaches its ultimate organization, this ideal will be achieved. The hospital is envisaged also as the logical center for that post-graduate training which, by general agreement, is necessary if medical men are to maintain their competence. Brush-up courses of a few days, it is argued, will never achieve this objective, and the needed opportunities for additional study and for extended clinical observation must be provided for all medical men upon systematic basis, organized perhaps around the teaching hospital, or around all hospitals, under correlated direction.

Can Preventive and Curative Medicine Any Longer Be Sharply Separated?

Chapter VII discusses public health organization, or rather begins a discussion more fully developed in chapter XI, on limited state medicine. Throughout the report there is clear emphasis upon the increasing importance of preventive medicine, both in medical education and in medical practice. Clearly, prevention had not yet achieved its proper status in either. Very clearly the report brings out that the medical youth of the country are still being trained in the tradition of curing, rather than preventing, disease. Progress is being made, it is true, in breaking down the sharp division between preventive and curative medicine, and also in breaking down the antagonism between public health men and men in private practice. But in these things, after all, according to many writers in this report, only a beginning has been made; we are still far from that situation in which public health agencies and private practitioners will see themselves as cooperating forces in a joint attack upon the prevention of disease, and a joint effort aiming at positive health, rather than simply the cure of disease.

All The Alternative Solutions Reviewed

With chapter VIII the report enters upon a discussion of ways and means of organizing medical care, in ways that will distribute it more effectively and lower costs to the consumer. This particular chapter outlines experiments that have been organized in various states and communities for distributing medical care at lower costs or providing it without cost to the indigent by cooperative arrangements between medical men and government. We have been hearing for some years of the approximately 200 "plans" in operation in different communities for more effectively organizing medical care. By and large the testimony of this report—including descriptions of many of these plans by the persons that have devised them or are administering them—is that no "master plan" is likely to emerge from these experiments, that these local plans, indeed, have been somewhat over advertised, that a mumber of principles and definitions need to be evolved before effective planning can be done. In the long run, the report points out, what is needed is planning rather than a plan.

Chapter IX is on state medicine, using the term here in the thorough-going sense, government paid and controlled doctors. The views of those that look toward state medicine of this type as the solution of present problems and the views of those entirely opposed to such a solution, are extensively set forth. The reader must draw his own conclusions.

Chapter X discusses insurance of all kinds, compulsory insurance, voluntary insurance, special forms of insurance such as hospital insurance, contract medicine, industrial group medicine, etc. For compulsory insurance there would appear from this report to be no extensive support. It is frequently characterized as "un-American" and the fact that it has been made to work in foreign countries has, in the view of many writers no necessary significance here.

The attitude toward voluntary insurance is entirely different. Most of the writers, even those who are not enthusiastic about the insurance principle, seem to feel that there is no good reason why people and groups should not insure themselves against illness if they wish to do so. The familiar arguments are brought forth, of course, first, that voluntary insurance does not work because those who most need it will not take it; and secondly, that it is not a solution because it does not reach the indigent, since the indigent cannot pay premiums. One comparatively large group of writers feels that the whole insurance philosophy is inapplicable to illness. They think it trains the public to stress "accomodations for more illness" rather than the means of prevention and positive health. Other writers point out that there is no more reason for insuring against illness than for insuring for paying the rent. A rather large group feels that while people should certainly be allowed to experiment with voluntary insurance as they see fit, insurance alone will not solve the problems of getting better medical care to more people at lower costs.

Hospital insurance comes in for particularly animated comment, doubtless because of the "boom" the hospital insurance movement is having on various parts of the country. There is little direct objection expressed to hospital insurance, the three cent a day plan, etc., although there are frequent references to the point that the actual soundness of the expedient has not yet been fully approved. It is recognized that hospital insurance has great appeal to the hospitals that are in the red, because it creates new money where none existed before; to patients with fixed low incomes who cannot pay for an operation without using the savings of a life-time; to doctors who hope that if the hospital is paid by the device of insurance, the patient may be able to wangle the doctor's fee. The fact that hospital insurançe has these three appeals, however, is not considered to prove that it is a permanent remedy for the situations it seems to cover. One group of writers indeed deplores the present popularity of hospital insurance, because, they believe, it obscures the more permanent remedy, partial tax support of hospitals. There is an interesting discussion of contract medicine—theprinciple and the practice.

One Proposal—An Integrated System of Private Practice, With Evolutionary Development of Present Forms of State Functioning

Limited state medicine, the final chapter, brings together the points of view of those who believe not, certainly, in "state medicine" in the sense in which the term is used in chapter IX, but in the sense of evolutionary development of the state's present functioning in the field of public health and public medical services. In this chapter, for instance, are contained the views of those who believe that the public health services of the country, state and local, should be extended and that in connection with this there should be a federal health authority coordinating the activities of state and local organizations, at least to the extent of furnishing and maintaining minimum standards. There is discussion of the possibility of coordinating the present federal health functions (including the veterans service) in a federal department of health with a secretary in the President's cabinet.

Of particular interest in this chapter is the discussion of the evolutionary development of governmental functioning with reference to diseases "endowed with a public interest." For many years only the mentally ill were considered to be the wards of the state. Then tuberculosis, with its risks to society and to industry, we recognized to be a concern of government—a disease, in other words, "endowed with a public interest." Cancer in Massachusetts and elsewhere has, during recent years, established its right to governmental concern and government funds, and pressure groups have won recognition for the same point of view in Washington. The past year has seen a greatly broadened recognition of governmental responsibility with reference to syphilis, and the possibility of nation-wide control of this disease. Pneumonia campaigns, with state departments of health cooperating, have been organized in various parts of the country in very recent years. A case has been made for governmental functioning with reference to the diseases in the cardiac group, because of the extent to which this group of diseases increases mortality and reduces industrial productivity. The case for arthritis has been similarly presented. The editor of AMERICAN MEDICINE asks significantly at the end of the chapter, "When the list of diseases endowed with a public interest is finally compiled, how long will it be?"

Other evolutionary developments of state functioning for which there is, among the contributors to this report, a large degree of endorsement, are the partial tax support of hospitals already mentioned; and the extension of the facilities of tax supported laboratories at low unit cost so that the scientific aids to diagnosis may be easily available to doctors and thus to their patients with modest incomes. As a result of volume of work, it is suggested, for instance, the x-ray series that now cost $100 could perhaps cost $15 or even $5 (there is no finality in the figures). It is argued by some leaders in medical science that extending the facilities of tax supported laboratories would alone revolutionize the present situation. It would enable practitioners that now have no easy access to the diagnostic aids to practice better medicine. It would enable the low income to get the diagnostice service they now cannot pay for. It would, in short, it is suggested, be a frontal attack upon that **belated diagnosis** which is now the cause of too large a degree of mortality.

My First Emergency Surgical Operation Under Many Difficulties, Great Excitement and Confusion

H. A. GANT, M.D.
COLUMBIA, TENN.

The Mississippi Doctor: In my early professional life at Water Valley, Miss., I was called hurriedly and unexpectedly one day to see a young man, lying on the sidewalk, who had been stabbed by his brother. The two boys quarreled over some money left by their father, (about $300) and got to fighting, when one of them gave the other a vicious cut in the thigh, which bled furiously. The boy had the judgment and foresight to place his thumb over the wound and stay the hemorrhage until Dr. C—, who was nearby, arrived and applied a tourniquet to control the bleeding. When I came on the scene there was quite a crowd of men around, all excited and asking questions about the fight. Dr. C— said, "Gant, here is a boy with the femoral artery cut and it must be tied." I said, "Well, Doctor, why don't you get him to a room and tie it?" He said, "No, I do not want the case and I turn him over to you." Doctor C— never did surgery and was in bad health. I said, "I do not want it either." I had never done any surgery except some minor operations and very few of that kind. I have never pretended to be a surgeon. But here was a situation that must be handled at once. I had read about Albert Sidney Johnston having died on the battlefield at Shiloh with his boot full of blood from the severed femoral artery by a rifle ball. I asked about the other doctors. None seemed to be obtainable. There was a circus in the upper part of town, and some were there, but it would take too much time to get one, so I reluctantly decided to undertake the case. The patient was carried to a room in a boarding house and I had everything made as clean as possible and had plenty of boiled water. I was fortunate in securing the services of a practical nurse, for this was before the days of trained nurses—even before the full establishment of the germ theory by Pasteur and its application in surgery by Lister. No bichloride, carbolic acid or iodine used. Just water. Just when we had the patient ready, my old friend, Dr. B— walked in and I asked him to give the choloroform, the anaesthetic universally used in the South, or at least mostly uesd. On examination, I found the wound very near the apex of Scarpa's triangle and nearly in the line of the femoral artery as given by my old teacher of surgery at the University of Pennsylvania, Dr. D. Hayes Agnew, one of the greatest surgeons of the last century. He used to tell us to draw a line from the middle of the internal condyle of the femur to the middle of a line drawn from the symphysis pubis to the anterior superior spinous process of the ilium. When Dr. B— announced the patient ready, I carefully made an incision along above mentioned line through skin, superficial fascia and muscular tissue to a depth where I thought the artery should be, but I could not find it. Then I went deeper and looked and felt for it, but still not finding it, became quite nervous and lost my nerve, for Dr. B— at this point, whispered to me that the patient's pulse was getting very weak and I had better hurry up. At this critical moment Dr. D—, the man who had a local reputation for surgery and for liquor, returning from the circus, staggered in and asked, "Gant, what have you here?" and when told, said, Can't you get the artery?" and I told him I had not been able to find it. Then he said, "You ought to be able to find it." In reply I said, "Wash up and come see if you can find it." He took the knife and felt about and cut a little deeper and fumbled aboutuntil I saw he was not doing any good so I said, "Can't you find it, Doctor?" "No (with an oath) I don't seem to be able to find it now." Then I told him to give me the knife and I began work and determined to find that artery if I had to go to the bone, but just as I made a little deeper incision there it lay in full view at the bottom of Hunter's canal. The ligation and closing the wound was a very simple matter and the recovery was complete in a week or ten days. Before going under choloroform the boy handed me the $300 and asked me to take care of it for him. I placed the money in the hands of my friend, the druggist, Mr. Backstrom, who put it in his safe. The next day the lawyer of the brother of my patient came to see me and said the money belonged to his client and asked me to turn it over to him. That I declined to do so he said he would get out legal papers compelling me to give up the money. I consulted my lawyer and he asked me what I did with the money and I told him. He then told me to have Mr. Backstrom mix that money up with all his bills, taking credit on his books so it could not be identified for in order to get possession legally each separate bill would have to be sworn to. I kept the money and when my patient was fully well, returned all to him except $75, which, considering the fright and stress and strain and visits following the operation was not too much.

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor and Mgr.
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Postgraduate Medical Assembly

Mid-South Post Graduate Medical Assembly
Editors:

E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dewell Gann, Jr., M.D.

Mississippi State Medical Association

W. L. Little .... President
Joe E. Green .... President-Elect

Editors:

Leon S. Lippincott, M.D. D. W. Jones, M.D.
G. S. Bryan, M.D.

Councilors

J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J. Gould Gardner, M.D.
Thomas J. Brown, M.D. W. H. Frizell, M.D.
D. J. Williams, M. D.

Published monthly at Booneville, Mississippi.

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act

We regret that we were unable to attend the meeting of the Northeast Mississippi 13-County Medical Society at Aberdeen. We thank Dr. Bryan for covering same. It must have been an unusually fine meeting. The entire program was good. Dr. Boyd's paper on hospital insurance seems to have put the boys in action. This paper has in it some fine thoughts. It came from a good thinker and a man of a sincere heart. The problem of hospital insurance is the talk of the hour in the medical profession. Let every man think on this subject, let him express himself freely, let him look at all sides and all angles and then act in the interest of the greatest number of the profession and the people. The interest of the general practitioner should be carefully safeguarded, for in so doing we are protecting the interest of the majority of the people. It is important for the acute surgical case to have immediate access to a hospital, and many of the medical; it is important for the hospital to make expenses, but it is unfortunate for the people for the hospitals to become too enthusiastic over making money. It is unfortunate for the mercenary spirit to prompt even hospital insurance. But at any rate we can better solve this problem by thinking about it and by talking about it provided we let justice and fairness be our guide.

Instead of a stunt night at the Mid-South why not have an "educational night" for the benefit of both the profession and the laity?

You will read with much profit the paper of Dr. McGehee on appendicitis. It always pays to read what he writes. The problem of appendicitis continues to be one of the major ones for the profession. In a large percent of the cases its diagnosis is very easy, in a few it is most difficult. There is no medical treatment for it. In the majority of cases the surgical is very simple if instituted within the first few hours of the onset. After its rupture in many cases it can baffle the ingenuity of the most profound surgeon. The man who knows the appendix in all of its setting has a good start on the mastery of the catastrophies of the human abdomen. A great number of the profession do not yet know the symptoms of the acutely sick appendix and are not fully convinced that early surgery is the only safe and successful treatment. After the medical profession is set straight on the problem, then the laity must be educated. A pain in the abdomen that lasts for one hour without a let-up should be counted appendicitis until it can be proved something else. Both the profession and the laity should know the five major symptoms of the acute appendix, take them up in the order in which they appear, and let a majority of them decide the case. The sick appendix must have access to both hospital and surgeon near at home. It is better to take a chance with the country surgeon in a six bed hospital within six hours of the onset than with a Mayo in the largest hospital in the world three days later.

Dr. G. L. Brown, of Tuplo, presents you a most interesting review of two volumes of AMERICAN MEDICINE—Expert Testimony out of Court. We are very grateful to Dr. Brown for the benefit of the readers of *The Mississippi Doctor*. It is a fine review of those volumes

It brings to the profession interesting information that all need to know. The great mass of the people certainly need better medical care and at the same time receive more renumeration for their services. Modern medicine to the masses at a cost at which it may be utilized with more profit to the practitioner constitutes one of the most important problems before the American People. We thank you, Dr. Brown, for this service.

A trained nurse for every practitioner would be a big step forward for the medical profession. Give the people better service in a more palatable form and it will not care so much for state medicine. No man can treat a patient without examining the patient, and no man can examine patients without some facilities for doing it. One of the most important pieces of equipment in the office or on the obstetrical call is a well-trained nurse.

The pre-convention clinics in New Orleans put on by Tulane should be well attended. They will be most instructive no doubt.

The new nurses' home at Greenville is a fine monument to the medical profession and to the citizenship of that fine medical center.

We are very grateful for additional courtesy cards in this issue: Edward Clay Mitchell Quin Clinic, of Memphis, and The Medical Clinic, of Jackson.

Radio talks on public health are all right, fine enough, but practical information in the country weekly paper would be worth many times more.

One of the finest pieces of educational work being done in Mississippi at this time is the Field Clinics under the direction of Dr. Boswell and the State Board of Health.

The program for the Mid-South Post Graduate Medical Assembly is now taking very definite form. The next meeting will no doubt be its greatest.

Don't fail to read what our splendid president, Dr. W. L. Little, has to say to you. Heed his advice. We should certainly increase our membership up to one thousand. We have many good men who should be members. They can help and be helped.

Our November issue will give special attention to the Southern Medical Association, its meeting in New Orleans, November 30 to December 3rd. And then we will look forward to the Mid-South number with the doctors of Memphis taking the lead.

In this issue you will read with much interest an interesting experience of Dr. H. A. Gant. We are mighty glad to have anything from the pen of the learned, the venerable, and the beloved Dr. Gant. We hope he will write often.

The third quarterly meeting of the Northeast Mississippi Thirteen Counties Medical Society was held in Aberdeen on Tuesday, September 21, as per regular schedule. It was a wonderful meeting. The attendance was large and the scientific program most interesting. Five speakers were scheduled and all were present and on time. The subjects discussed were very pertinent to the trend of progressive medicine. They were well presented and each of them gave evidence of analytical thought in preparation, and elicited free discussion from the floor. The first paper on the list was presented by Dr. F. M. Long, of Starkville, the subject being "Medical Ethics." Dr. Long developed this important subject in detail. This paper was timely; for in this restless and shifting day of commercialism there seems to be great danger of the profession breaking loose from its historic moorings. The next paper brought up an old subject dressed in a somewhat modern garb. This paper was presented by one of our younger members, Dr. A. G. Leroy, of Booneville. He, I think, is on the staff of the Anderson Clinic. This is the first time this brilliant young doctor has taken part in the work of this district society. His subject was "Summer Diarrhea." This subject, perhaps, will always be important, yet when compared with former years it is of waning concern to both the profession and the public. This gratifying fact is due, in large part, to the splendid measure it is due to the advanced knowledge the profession has acquired of the nature and etiology of this great destroyer. Like Saul it still slays its thousands, but David-like, it slew is tens of thousands in the past. The next paper, likewise, was presented by one of our new recruits, Dr. T. A. Chandler, of West Point. His subject was "Arterio-Venus Fistula." While this condition is rarely recognized and reported, it is of great importance to the victims of the condition. Its immediate treatment is, necessarily, surgical—hence it might be assumed that only a few of those in attendance were deeply interested. However, this, happily, was not true. The recognition of this condition will depend, to a great degree, upon the diagnostic acumen of the general physician. So it is necessary for us all to be on our toes, so to speak, in an attitude of expectancy for these unusual cases. We appreciate Dr. Chandler's contributions to the program. We now come to the crowning event and contribution of the occasion. The "Guest Speaker" of the day was a man of south-wide reputation as a speaker, a scholar, a surgeon and a prince among gentlemen. I refer to Dr. R. L. Sanders, of Memphis. Dr. Sanders is a frequent visitor at these meetings. He is always received with open arms. His welcome is boundless and immeasurable. His lecture was not only replete with sound teaching but it presented a subject of almost universal interest—namely, "Diagnosis and Treatment of Gall Bladder Disease." He did not tire his hearers with discussion of surgical technique, but went into the physiological fundamentals that have to do with the development and treatment of this most prevalent condition. The writer has never heard a simpler, clearer, or better discussion of this condition. There is no way to evaluate the worth of this lecture. The membership was most happy to have Dr. Sanders and we deeply appreciate his teaching on the occasion. The last paper on the program was presented by Dr. C. E. Boyd, of Amory, or more properly, of Hatley. His discussion was on "Hospital Insurance." Dr. Boyd is a "rural practitioner" but he is one of the clearest thinkers and safest practitioners in his territory, as well as a fine gentleman. His paper gave evidence of close study of the question and it was faultlessly prepared. He viewed the subject, first, from the bearing it would have on the time honored relation between physician and patient showing that this relation would be broken and that the patients would be segregated in hospitals far removed from their family physician and put under the care of some staff member of the receiving hospital thus subtracting from the meager income of the rural doctor and increasing that of his more fortunately situated town competitor. He hinted, delicately, at the fact that the rural practitioner's prestige as well as his income would be lessened. He stated that it was his belief that but two courses would be open for the country and small town doctor if the plan suggested should work—namely, either to go out of business or move to some hospital town, where, in all probability, no hospital connection would be available for him. He then made it clear that the people who most need hospitalization would never be benefited since they would never be insured. His plan and plea was for the protection of the rural doctor and for the better care of the fifty per cent of the people who can neither pay for medical care nor carry insurance. This paper elicited a prolonged discussion which became a bit heated altho it was not acmonious. It became very evident that a rift is widening between those who are interested in hospitals and those who have no hospital connection. This is to be regretted very much since the minority constituting the membership of the hospital association is composed of men of ability and influence. Their help in forwarding the general interests of the organized forces of medicine is badly needed—indeed is nearly indispensible. Again it is an indisputable fact that the hospitals will be wrecked if they lose the hearty support of the great body of the rural practitioners. "A house divided against itself cannot stand." What a pity! What a pity it is that we cannot unite upon some plan that will save the hospitals and give adequate service to ALL the people and yet take care of the interests of our country doctors as well as those more fortunately situated. This could be done—it should be done—it must be done. The plan offered by Senator J. Ham Lewis, in my opinion is the best proposed so far.

G. S. B.

FROM PRESIDENT LITTLE

A greater number of our Mississippi doctors have done post-graduate work this year than usual, while many others have taken vacations, either visiting or fishing. Before this appears in our **"Mississippi Doctor,"** quite a number will have returned with a fuller knowledge of medicine and surgery. They have spent weeks in special study at the great centers of medical and surgical education and are ready and willing to pass on to others this valuable information. I am asking all to attend the meeting of their county and district societies, thereby getting the latest methods and information from those who were fortunate enough to spend their vacation in study. Not only will the meetings be enlightening but very entertaining. There will be many to tell you new stories: how great a catch of fish they made or the size of those that got away.

We all should have an increasing interest in scientific medicine, but it is our duty to have a professional feeling for our brother physicians who are negligent, or don't know the knowledge to be gained by coming in contact with the other doctors. On September 1, there was an increase of 41 members over December 31, 1936, or a paid membership of 967, but some of our large societies failed to show an increase. I hope that the officers of the state district and county societies will get busy listing those who are eligible for membership and solicit their dues before the new year. I urge these same officers, that they do not neglect to collect rewards from present members for, should they fail to pay their membership dues on or before January 1 of each year, they forfeit all protection by the Medico-Legal Fund.

The goal of the Mississippi Medical Association is one thousand members of enthusiastic doctors working as a unit for the advancement of medical science, and the elevation of the individual members of our noble profession. Unless the officers and members feel and assume a personal responsibility toward obtaining this goal, we can never hope to get it. It is in this respect that I urge the present members to work in behalf of the association.

W. L. Little.

GEORGIA PEDIATRIC SOCIETY

The annual scientific meeting of the Georgia Pediatric Society will be held in Atlanta on Thursday, December 9. Among the guest speakers will be Dr. Ralph S. Muckenfuss, Director, Department of Health, Bureau of Laboratories, New York City, Dr. Priscilla White, attending physician, Deaconess Hospital, Boston, Mass., and Dr. Joseph Brennemann, Professor of Pediatrics, University of Chicago, and Chief of Staff, Childrens' Memorial Hospital, Chicago, Illinois.

THE LIFE AND MISSION OF THE PHYSICIAN

J. Q. Fountain, M.D.
Sardis, Miss.

The physician sees many things that are not ordinarily exposed to view. He is called upon for advice and information upon matters that are held secret and sacred. His work often soils his hands with unnameable grime, and jeopardizes his comfort and safety; yet, when pursued in the spirit of philanthropy and scientific endeavor, its repulsive features serve but to bring out in bold relief the ennobling virtues.

Civilization is as yet but a mere film of refinement and intelligence, lightly placed upon a foundation of ignorance and superstition. Every physician must at the present time be a missionary, and in his work of pointing out the way to health, (without which there can be no happiness), must expect to receive, oftentimes, the treatment accorded his theological fellow at the hands of barbarity.

The people look to the medical profession for the restoration and preservation of health, and modern medical science is directed toward the prevention of disease.

The office of the physician is not only that of a healer, but that of a sanitarian also. The latter becomes the higher office from the fact that the interest of the many are superior to those of the individual.

The present age is not so much what a practitioner of medicine is able to cure, as what he is able to prevent, that marks him as a benefactor. After all, the prime object of the physician's existance is to keep his patients in health, and when disease overtakes them, it is his business to restore them to health as speedily as possible.

When a patient seeks the aid of his physician, the latter, in addition to prescribing for him, gives him certain advice and suggestions as to his mode of life, which will aid materially in his restoration to health. If the patient is sensible and possessed of good judgment, he will continue to live in the manner prescribed, and in the majority of cases avoiding a recurrence of the original trouble.

And if the physician could have given his advice before the appearance of the ailment, and the patient had followed it, the chances are it never would have occurred. In multiplying this condition and extending it to a community instead of a patient, a large amount of illness will have been prevented.

A physician, in his capacity as the guardian of his patient's health, will not have done his whole duty unless he gives such instruction and information as will be conducive to general good health and happiness, and point out what leads to disease and misery.

DR. G. T. CRANFORD, 60, DIES AT HATTIESBURG

Dr. G. T. Cranford, 60, colonel on the staff of Governor Hugh White, and for 40 years a prominent physician of this section of the state, died last night at the Methodist Hospital of pneumonia after an illness of five days.

Funeral services will be conducted at the Cranford home at Seminary at 10 o'clock tomorrow morning. Burial will be in the Eminence Cemetery. The Rev. T. C. Cooper, of Anguila, will officiate, assisted by the Rev. J. B. King, of Seminary.

Dr. Cranford was born in Seminary and lived there all his life. After attending Millsaps College at Jackson he entered the Medical School of the University of Tennessee, from which he was graduated in 1898.

Returning to Seminary Dr. Cranford began the practice of medicine and rapidly gained a prominent place in civic, fraternal and medical circles in this section. For 24 years he was Covington County health officer. He was a thirty-second degree Mason and a steward in the Seminary Methodist Church.

Dr. Cranford married Miss Mamie Terrell, daughter of Dr. and Mrs. J. D. Terrell, of Mt. Carmel, Covington County. Mrs. Cranford died five years ago. Their one living child, Tom Crawford Jr., is a resident of Seminary. Other survivors are Dr. Cranford's mother, Mrs. Rachel Ann Cranford, 90, of Seminary; three brothers, Dr. Roland H. Cranford, of Laurel, Dr. W. S. Cranford, of Ellisville, and the Rev. Jack Cranford, of Seminary, and two sisters, Mrs. Byrd Peterson, of Seminary, and Mrs. Bessie Poole, of Jackson, Miss.—Commercial Appeal.

FIRST KNOWN CAESAREAN OPERATION

Editor, The Mobile Register:

Dear Sir: The Associated Press story in The Register of Thursday, September 2, telling of a posthumous Caesarean operation upon a tenant farmer's dead wife and the successful deliverance of twins, brings to mind that Mobile has the honor of the first successful Caesarean operation to be performed in the United States, perhaps in the world up to that time, although the woman upon which it was performed lived to raise her baby.

The Mobile Caesarean operation was performed by Mobile's noted doctor and citizen, Dr. F. E. Gordon, who was a member of the first faculty of the old Medical College of Alabama on St. Anthony and Lawrence Streets, now the Negro Community Center. Dr. Gordon was Professor of Obstetrics and Diseases of Women and Children. The operation was performed just shortly after the Civil War, with the assistance of several other prominent Mobile doctors.

This record is contained in the Civil War diary of the late Capt. Daniel Geary, the grand old man of Mobile, and verified by the older Mobile doctors living at the time the operation was performed. I have included in it my History of the City Hospital of Mobile and Mobile Medical Notes, because of the rareness of such an operation at that early day. I also have my step-grandfather's Civil War diary in which the original record is recorded in his handwriting.

At the time of the operation Dr. F. E. Gordon had his office at No. 64 St. Francis Street, and his residence at No. 68 St. Louis Street. He also performed many other unusual operations pertaining to women and their diseases. Dr. George A. Ketchum, Dr. Josiah C. Nott, Dr. W. H. Anderson, Dr. F. A. Ross, Dr. J. E. Heustis, Dr. Goronwy Owen and Dr. A. P. Hall, who all served on the first faculty of the old Medical College, as well as many of the other older physicians of Mobile, lauded Dr. Gordon with high praise for performing one of the rarest operations pertaining to women known to science up to that time.

Dr. Josiah C. Nott advanced the theory that yellow fever was caused by the bite of a bug, while in our own time another Mobilian, my deskmate in school, Dr. Max Touart, of New York, discovered a new fever disease.

Members of the present prominent Sage family, of Mobile, whom I conversed with on the subject, will verify the above Caesarean record, as they are descendants of the noted Dr. F. E. Gordon.

—Francois Ludgere Diard.

Mobile Reporter, Sept. 9, 1937.

DR. SAMUEL A. MUDD, HERO OF THE DRY TORTUGAS

By Leo M. Zimmerman, M.D.
Associate in Surgery, Northwestern
University Medical School
Chicago, Ill.

The assassination of Abraham Lincoln startled and horrified the world. In a land just emerging from a bloody Civil War it released a surge of bitterness and intolerance such as we, another postwar generation, can well appreciate. A clamor for vengeance arose which threatened to renew the hostilities and was appeased only after a number of victims were offered in sacrifice, irrespective of their guilt in the crime. One of these victims, whose innocence cannot be questioned, was a physician, Dr. Samuel A. Mudd, who was dragged into the tragic affair by the sheerest accident. Having been found guilty by a travesty of a court of justice, he was sent to a military prison where he was subjected to inhuman abuse and persecution. Nevertheless, when a need for his services arose, he remained true to the finest ideals of his profession and gave unsparingly of himself in the face of gravest danger, to minister to his jailers and fellow prisoners. The scientific spirit, too, remained alive, impelling him to note and record clinical observations which might be of value to the rest of the world. After four years of incarceration, he was granted a presidential pardon and was restored, in a measure, to his former status..

Samuel Mudd was born in 1833, in Charles County, Maryland, of wealthy land and slave owning parents. He attended St. John's and Georgetown Colleges and studied medicine at the University of Maryland, being graduated with a certificate of merit in 1856. He engaged in medical practice in the vicinity of his parental home, and, after some eighteen months, married a neighbor and childhood sweetheart, Sarah Frances Dyer. The couple settled on a farm of their own and soon became busily occupied with medical practice, domestic pursuits and the rearing of a rapidly growing family of young children. It was from this peaceful picture that Dr. Mudd was rudely torn by the stirring events of April 14, 1865.

The events of the assassination of President Lincoln are well known. As Booth leaped to the stage following the fatal shot, his spur caught in the folds of a flag which draped the presidential box, and he fell, fracturing his ankle. In the confusion which prevailed, he managed to hobble swiftly across the stage and out through a rear door of the theatre, where a horse was held in readiness for him. He was joined by one of his co-plotters, David Herold, and together they made for the Potomac River. The pain from the fractured ankle, however, became unbearable. In his diary, he describes "the bone of my leg tearing the flesh at every jump." Toward morning they turned from their course and rode eight miles to the home of Dr. Mudd whom Booth had met casually on two previous occasions.

Dr. Mudd was awakened about four o'clock in the morning by two strangers seeking medical aid. In disguise, under fictitious names, and with a plausible explanation of a fall from a horse to explain the injury, they escaped recognition. Dr. Mudd cut the boot from the injured leg, set the fracture and gave the fugitives a room for the night. On the following afternoon he rode to a neighboring town where he heard the news of the President's death. When he returned, the strangers were gone and his wife informed him she had noticed that the injured one wore false whiskers which became detached as he came down the stairs. His suspicions then aroused, Dr. Mudd wished to go at once and inform the authorities, but his wife, afraid to be left alone with violent and suspicious characters roaming the countryside, prevailed upon him to wait until the following morning.

The next day was Sunday, and Dr. Mudd sent word to the military authorities through his brother, whom he met at church. Two days later a band of soldiers came and inspected the premises, but did not follow the course which Dr. Mudd said the fugitives had taken. On the following Friday they returned, and were shown the boot which had been cut from the injured limb. On the inside the name, J. Wilkes .... was found. This definitely identified the stranger as the slayer. He and his companion were eventually trailed and surrounded in a barn, early on the morning of April 26. They were called upon to surrender and Herold did so. Booth refused and the barn was fired. As he emerged, hobbling on a crutch, a shot was heard and he fell, mortally wounded. Whether he shot himself or was killed by one of the soldiers, has never been definitely determined.

In the meantime, Dr. Mudd and a number of others suspected as accomplices were arrested. They were tried for "conspiracy" and the death penalty demanded. The trial was a tragic burlesque of justice. The constitutional right of trial by civil court was denied the prisoners and a military tribunal was appointed for the hearing. Bitterness and prejudice prevailed, at the expense of fairness and justice. Discredited, perjured and irrelevant evidence in the possession of the prosecution was withheld. The defendants to be hanged, and three others, including Dr. Mudd, were condemned to life imprisonment. To remove effectually the prisoners from contact with their friends and further recourse to law, they were sent to Fort Jefferson on the lonely and desolate Dry Tortugas Islands in the Gulf of Mexico, some sixty miles off the west coast of Florida.

One cannot read the letters[1] written by Dr. Mudd to the intimate members of his family without being impressed with the sincerity of his protestations of innocence. He reveals himself to be a gentle, modest person, most deeply concerned with the welfare of his wife and the four little children. He grieved over the sorrows and infirmities of his aging parents, his mother dying during his period of imprisonment. He was solicitous over the management of the farm, difficulties of procuring labor due to the liberation of the slaves and the jeopardy to his family from marauding vagabonds who terrorized the border states. He stands out for his fortitude under adversity, his simple faith and his confidence in the ultimate triumph of righteousness, and his courage to face rebuff and disappointment as one expedient after another was tried, in vain, to effect his release.

When first admitted to prison, Dr. Mudd was given duties in the dispensary and some measure of freedom. After some three months of incarceration, however, he attempted to escape aboard a vessel that put in at the island. He was recognized and returned in chains. He stated later that his intention was to reach some place where a writ of habeas corpus could be obtained and there place himself under the protection of the civil authorities. After this ill-advised attempt, he was subjected to such persecution and abuse as man can devise in his inhumanity to man. He was kept in chains and under close guard in his quarters, forced at the point of a bayonet to do the most menial tasks and forbidden any conservation with anyone except his immediate cell-mates. Outgoing and incoming letters were opened and censored. The food was intolerable, the quarters were foul and swarming with bedbugs and mosquitoes, and the climate was unbearable. Weeks lengthened into months and years, and eagerness and hope yielded to apathy and disillusionment, to be replaced in turn by bitterness and resentment at his unjust and prolonged persecution for no greater crime than fulfillment of his simple professional duties to a suffering human being.

years after Dr. Mudd's arrival, a severe epidemic of yellow fever broke out on the island. The post doctor was one of the earliest victims of the disease and the medical duties of the island devolved upon Dr. Mudd. He threw himself into the work with unreserved energy and with total disregard for his own safety. A series of reforms in the handling of the sick were immediately instituted, the results of which were reflected in a striking fall in the mortality rate. It had been the practice, among other things, to send the patients in an open boat to the hospital on another island, two and one-half miles away. He considered the delay in instituting treatment and the added exposure detrimental. Instead, the sick were hospitalized at once and given vigorous and intensive treatment. Those companies of the garrison which were free from infection were sent to an adjacent island. When another physician was sent to assume charge, Dr. Mudd worked under his direction, spending eighteen hours or more a day ministering to the sick and dying, and spreading cheerfulness and hope among the demoralized soldiers and prisoners. His letters describing the epidemic are most interesting. He writes to his wife:

> It is now nearly eleven o'clock at night, and though tired and worn from constant attention upon the sick and dying, having buried two today. I cannot refrain from letting you share the gloom which surrounds

---

[1] Weller, C. V.: The Pathology of Certain Signs and Symptoms in Primary Carcinoma of the Lungs, Am. Int. Med.' 2, 725-746 (Feb., 1929)

> this seeming God forsaken isle. Although three-fourths of the garrison have been removed, the epidemic seems to increase with unabated fury. The first three or four days of my attendance in the hospital we were not visited with a single death. Since then, the number has largely increased, the most experienced nurses have been seized with the disease. It is impossible to obtain suitable nurses to bestow the attention required, and seven unfortunate beings have been ushered into eternity, without a kind word or ministering angel of religion. Our hospital being insufficient to hold the numbers, a second, then a third, and yesterday a fourth, were provided and they are all filled. We have scarcely well ones enough to attend the sick and bury the dead. They are not suffered to grow cold before they are hurried off to the grave.

Again he says:

> I have been acting physician and nurse for a considerable time until I am nearly exhausted. My heart sickens at the prospect which is before me. Were an enemy throwing shot and shell in here a more horrible picture could not be presented. . . .Sometimes the poor creatures are struck with delirium from the beginning, and are perfectly wild and unmanageable; some die the same day they are taken, but most live to the third day. More die for the want of proper nursing and care than lack of medical attention. I am up all day until twelve o'clock at night. Dr. Whitehurst comes around between that time and day. I sleep until five or six o'clock in the morning and return at seven.

With the garrison sick or absent, and five of the six officers dead, discipline was, of course, demoralized, and guard duty relaxed. By virtue of the nature of his duties, Dr. Mudd was free to come and go at his pleasure. Opportunities for escape readily presented themselves and were considered, but he chose to stay in fulfillment of his duty. In his own words,

> By the hand of Providence my fetters have been broken, yet I run not, preferring to share the fate of those around me and to lend what aid in my power to breaking down the burning delirium and giving all the hope and encouragement possible to the death-stricken victims of the pestilence.

Despite the pressure of urgent duty, Dr. Mudd took occasion to make a number of observations regarding the spread and treatment of the disease, which he recorded and preserved. "Should I have time," he wrote, "I will endeavor to give to the world my theory and experiences of the disease, as confined to this island." On the basis of some very shrewd deductions from the manner of spread of the infection, he arrived at conclusions as to the etiology of yellow fever which approached our present conceptions. He noted that when the patients were sent to a separate island, the nurses and attendants remained free from the disease, although they were in constant and intimate contact with the sick and dying. Therefore, the disease itself was not contagious. But when the same nurses were brought back to the island originally infested, when the attendants came into contact with the patient's own bds or linens, they prompty succumbed. Therefore the germs of the disease were transmitted by "fomites" or by "continuity of matter." His record of regular progression of the fever from bed to bed in unbroken sequence suggests that the fomite responsible was a vector less agile than the mosquito. As for treatment, he stated that, "It was not long before I discovered I could do more with nine cases out of ten by a few consoling and inspiring words than with all the medicine known to me in the materia medica."

By his unflagging efforts, his indomitable courage, and his unfailing cheerfulness in the presence of despair and danger, Dr. Mudd endeared himself to all the members of the garrison of his island prison. Without solicitation, they insisted upon drawing up a petition, signed by every officer and man in the fort, describing the valiant services which he had rendered, and requesting that the President terminate his sentence. Unfortunately, President Johnson was then engaged in the political struggles which led to his attempted impeachment and there is no record of his having received the petition.

During the course of the epidemic, one of Dr. Mudd's cell-mates and fellow "conspirator" to whom he had become greatly attached, died of yellow fever. Mudd contracted the disease as the epidemic waned and was left in a weakened condition, from which he very slowly recovered. When the pestilence ended, the old order was resumed; fetters and guards were replaced and letters censored. Efforts at obtaining release met obstacle and delay occasioned by the political storms raging in Washington. Another year of disappointment and misery passed and it was not until March 8, 1869, after four years of horrible imprisonment that he was finally pardoned by President Johnson.

Dr. Mudd arrived at his home two weeks later to take up the threads of life so abruptly broken by these unfortunate circumstances. His health was broken, his fortune gone, his practice dispersed, his farm in a terrible state of disrepair, and the general economic situation impaired by the war's waste and depredations. The task confronting him was not an easy one, but he met it with characteristic patience and courage. He succeeded, in part at least, in regaining the confidence of his neighbors and in restoring himself to his earlier position in life. His health remained agile, however, and he died January 10, 1883, at the age of fifty years, of pneumonia contracted as a result of exposure in inclement weather while attending his patients.—*American Journal of Surgery* November, 1936. This article was handed to the editor by Doctor W. A. Evans of Aberdeen.

SOUTHEASTERN BRANCH SOCIETY OF THE AMERICAN UROLOGICAL ASSOCIATION

A recent news letter shows an unusually outstanding program, as follows:

Dr. H. W. E. Walther, New Orleans, La.—"Hormonal Treatment of Benign Prostatic Hypertrophy."

Dr. Gershom Thompson, of the Mayo Clinic —"Clinical Data Concerning Prostatic Resection."

Dr. Nelse Ockerblad, of Kansas City—"Surgery of the Human Ureter."

Dr. Jas. J. Ravenel, of Charleston.—"Extravasation from the Lower Urinary Tract."

Dr. Clyde Deming, Secretary of American Urological Association—title of paper not definitely decided upon.

Dr. Edwin P. Alyea, Professor of Urology at Duke University—"Cystoscopic Removal of Large Ureteral Calculi by Modification of the Usual Manipulative Methods."

Dr. J. A. C. Colston, of Baltimore, will report results he has obtained with the use of Sulfanilamide.

Dr. Owsley Grant, of Louisville, Ky.—"Urology in Children."

Dr. Milton Coplan, of Miami, Fla.—Case Report with Lantern Slide Illustrations.

CASE REPORT

Sulfanilamide in a case of Meningitis

M. A., a colored woman age 25 consulted me at my office about 3:00 p.m. She gave a history of pain in right side of neck for four days continuous and growing worse each day, temperature 102 degrees, pulse 100, no tenderness in neck, no stiffness, no sore throat, no evidence of any local infection, except a mild conjunctivitis. I took a specimen of blood, gave a hypodermic of morphine and some quinine. Was called out about eleven that night and found her with a splitting headache continuous vomiting, temperature 103, neck and spine rigid, with a positive Kernig and Brudzinski. I gave ½ gr. morphine and 1/100 hyoscine. Returned early next morning and found vomiting had checked up but not completely; temperature 102, headache and pain in spine. I gave her morphine and hyoscine and an injection of "Pronto Sil" 5 cc.

Put her on sulfanilamide 20 grs. four times a day. I kept her on this routine for four days (80 grs. sulfanilamide and one shot of Pronto Sil 5 cc.

Her headache abated but I had to give her morphine and hyoscine twice a day for severe pain in her spine. On the fourth day the temperature was 99 degrees in the morning and on the fifth normal with slight rise in the afternoon. I dropped the Pronto Sil and cut the sulfanilamide down to 40 grs. a day.

Rigidity of neck and spine persisted for five days more and I had to keep her on opiates, which I gradually withdrew. At the end of two weeks she was sitting up, good appetite, no fever and no sequelae except slight rigidity and tenderness of spine. There was no spinal tap made and no blood tests except for malaria and typhoid which were negative. There were no other cases in the neighborhood.

E. G. Martin,
Benoit, Miss.

NEW YORK WORLD'S FAIR

For the first time in any international exposition, a separate building has been assigned by the New York World's Fair of 1939 for presentation of the story of medicine and public health. This building, to be erected by the Fair Corporation, will be in the heart of the exposition's exhibit area, on the northern side of the Theme Plaza. Not as yet named, it will house "A World of Health."

The exhibits for this building are being planned by a General Advisory Committee, composed of 101 national, state and local authorities on medicine and public health, appointed by Grover Whalen, President of the Fair. Dr. Victor Heiser is chairman of this committee.

Included in the exhibit will be presentations of the latest discoveries, devices and advancements in every phase of medicine and health, indicating, in new and dramatic manner, what man may do to take utmost advantage of the store of scientific knowledge now available to insure his health and that of his family.

Collected in the Health Building, the visitor will find colorful and animated displays portraying man's anatomy and physiology and the dynamics of his bodily functions. The construction and operation of the digestive system, of the nervous and respiratory systems and of the glands of internal secretion which have such marked effect on human personality and physical characteristics, will be shown in so simple a manner that descriptive matter will be kept to a minimum. But, where this may be absolutely necessary, it will be presented in the plain language of the layman.

In planning and gathering the exhibit, the Advisory Committee is acting with the Theme Committee of the Fair, of which Robert D. Kohn is Chairman.

The Executive Committee of the General Committee directly supervising the presentation is made up as follows: Dr. Louis I. Dublin, Third Vice-President, Metropolitan Insurance Company, Chairman; Dr. James R. Reuling, Jr., Vice-Chairman; Dr. George Baehr, New York Academy of Medicine; Dr. S. S. Coldwater, Commissioner of Hospitals, New York; Dr. Victor Heiser, Dr. David J. Kaliski, Chairman of the Coordinating Committee of Five Medical Societies; Dr. John L. Rice, Commissioner of Health, New York, and Homer N. Calver, Director of Health Exhibits.

Through an agreement signed by Mr. Whalen, responsibility for the plan and development of the exhibits has been placed on the Advisory Committee.

"As in the case of all other exhibits at the Fair," Mr. Whalen said, "we want to have the subject of medicine and public health brought to the consciousness of the average man. We want him to realize what is available to him in both knowledge and technique, to appreciate dangers and the means of avoiding them in his home life and elsewhere.

As at present conceived(The Hall of Public Health may emphasize the problems of society in this wide field, how they are being met and how they relate to the individual. Some of the proposed sections are maternal health, infant and child hygiene, heredity and eugenics, mental hygiene, industrial hygiene, safety and first aid, sewage disposal and water supply, intestinal diseases such as typhoid fever, and dysentery, the control of communicable diseases, the relations of insects to disease, maritime quarantine, deafness, blindness and harmful superstitions.

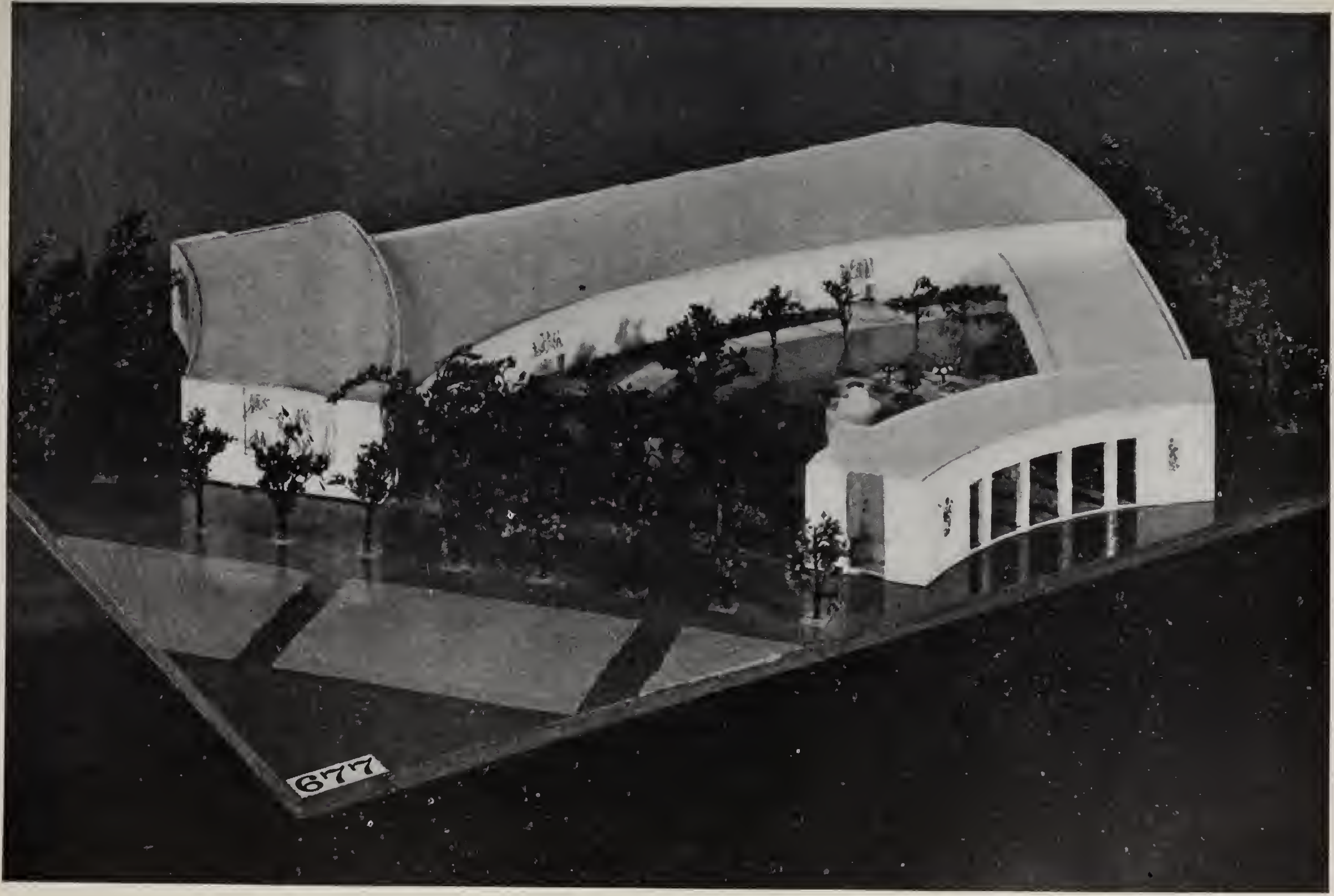
In comment upon the exhibits being gathered for this graphic display of modern medicine and the scientific conservation of human health, Dr. Dublin said:

"All in all, this building of the Fair will present for the first time a unified, coordinated demonstration of the story of man in relation to medicine and health. It will be a complete picture of man in his totality, together with the many hazards that menace him, each shown in its relationship to man and to one another. The presentation will be definitely for the average man who may have problems of his own as to which he seeks both scientific information and proper instruction. There can be no doubt that mankind everywhere will be a tremendous gainer through this carefully prepared presentation."

As a means of aiding the average man who desires answers to questions concerning his bodily health or hygiene in general, the committee is considering the establishment of information booths in several parts of the building conducted by carefully selected physicians or health authorities thoroughly competent to answer queries or refer them to appropriate sources.

The medical and health building, designed by Mayers, Murray and Phillip and to be erected at a cost of about $425,000, will have a floor area of 81,871 square feet. Of this total, the Fair's focal exhibit will occupy 10,000 square feet. The remaining floor space will be financed by the selected sponsors.

This photograph is on a scale model of a building to be erected by the New York World's Fair 1939 to house an extensive exhibit which may be called "A World of Health." This exhibit, surrounding the Fair's focal display, will portray the latest advancement in every phase of medicine and the safeguarding of health.


677

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

Caesarean Section*

H. R. SHANDS, M.D.
JACKSON, MISSISSIPPI

On two former occasions the experience of the staff of the Mississippi Baptist Hospital, with the operation of caesarean section, has been presented. The prime object of this paper is to report accurately and truthfully the results which have been obtained in the cases treated by caesarean section in this hospital during the past fourteen and one-half years, and to discuss briefly the important factors that seem to have contributed to the favorable results which have been obtained. The three factors which seem to have contributed most to the favorable results in cases treated by caesarean section are:

First, the proper handling of the case before the operation is performed. Whenever an abdominal delivery becomes necessary on a patient who has repeated vaginal examinations, the danger is greatly increased. The obstetrician should overcome the temptation to make frequent examinations in any case and especially in a case that is not progressing normally and in which he has reason to fear that later operative delivery may become necessary. This was the cause of one of the deaths in our series. This patient was the daughter of a physician. She had a contracted pelvis with a malposition of the foetus, and remained in labor for three days before section was done. She died a week later of sepsis. When a situation of this kind arises, it would be much wiser to resort to some other form of delivery, or at least to do a Porro operation at the time of delivery.

The second factor—and one of the very greatest importance, is to use the low operation—the one advised by Dr. DeLee and named by him, "laparotrachelotomy." To my mind this is one of the most perfect operations that has ever been conceived. When one realizes its excellence, it is hard to understand why it took over nineteen centuries for the obstetrical profession to develop such a logical and reasonable procedure, and one which eliminates many of the dangers incident to the classical section. We have been fortunate enough to be able to demonstrate Dr. Lee's motion picture, thoroughly illustrating all the points in connection with this operation. For some reason that is not apparent, this operation has been accepted very slowly by the surgical and obstetrical profession of America. In Jackson, although we have preached its advantages for five or six years, few surgeons are practicing it. From Dr. DeLee's statement this seems to be true to a greater or less extent in other parts of the country. With the low section there is far less danger of infection and hemorrhage.

We recently treated a case which illustrated both of these important points. The patient was referred to my associate, Dr. O'Ferrall, from a distant town. She had been in labor three days. Her physician—a most excellent one—had made only rectal examinations. When the patient was admitted, she was thoroughly exhausted, with a pulse of 165. Notwithstanding this fact, when we learned that no vaginal examinations had been made, we were able to treat her by abdominal section, after giving her a blood transfusion and intravenous glucose drips. The low section was done, and she had a smooth convalscence with prompt recovery, the baby's life also being saved.

The obstetrician should develop his ability to make the proper diagnosis by rectal rather than by vaginal examinations, whenever possible. Every surgeon who undertakes caesarean section should perfect himself in the technic of the DeLee low section. Chances can be taken in doing the low section which could not possibly result successfully where the classical high section is done. With the use of the low section, the operation can be made practically extraperitoneal, and there need be no contamination of the peritoneal cavity. If the patient is placed in a low Trendelenburg position before starting the operation, many times it can be performed without ever seeing an intestine. This eliminates the necessity of placing a pack in the abdomen, and consequently diminishes postoperative swelling, which is a worrying factor after caesarean section.

---

*Read at a special session at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 12, 1937.

The third important factor is the method of anesthesia. In cases of toxemia or eclampsia, it has been our custom to use spinal anesthesia, or local anesthesia, and within the past year, we have at times used cyclopropane anesthesia. In the past, on two occasions, papers have been presented bringing out the reasons why we favor prompt delivery, if necessary by caesarean section, in cases of actual eclampsia or serious pre-eclamptic toxemia, which have resisted the ordinary medical treatment. It is gratifying to know that the professors of surgery in some of our leading medical schools are not nearly so severe in their criticism of the use of caesarean section in eclampsia now as they were a few years ago. In our hands, we feel certain that we have obtained better results than we could have obtained by more conservative measures.

In the past fourteen and one-half years, there have been treated at the Mississippi Baptist Hospital two hundred and sixty-five cases, with the use of abdominal section. Death resulted in seven of these cases, giving a mortality of three per cent. Of this number, thirty-five had eclamptic convulsions. There were four deaths in this group. There were fifty-two cases of serious toxemia of pregnancy in which medical treatment was of no avail. No deaths resulted in these cases. There were ninety-seven cases in which operation was done for contracted pelvis, with no deaths. There were forty-eight cases in which the cause for operation was severe vaginal bleeding, either accidental separation of the placenta, or placenta praevia. One death resulted in this group. There were thirteen cases of uterine inertia, with no deaths. Seven cases of tuberculosis, with one death. The various other indications were: heart disease, locked twins, transverse presentation, malposition of the foetus, previous caesarean section, fibroids of the uterus, purpura hemorrhagica, ruptured uterus, cervical distocia, and chronic nephritis.

Of the two hundred and sixty-five abdominal sections performed, all the patients except seven lived and left the hospital. This gives a gross mortality of almost exactly three per cent. and this is an uncorrected list of deaths. All deaths which occurred from any cause are included. Among the eclampsia deaths, one was due to a pulmonary embolus eight days after the operation in a patient who was admitted after having had seventeen convulsions. She was placed on the operating table immediately after admission, although her temperature was 104, and although she vomited bloody fluid over the floor of the operating room just before operation. At the end of eight days she was apparently in excellent shape, and planning to go home when she died suddenly from pulmonary embolus.

Two of the cases were admitted having very severe convulsions. These were colored patients who had been unconscious for a number of hours and badly neglected before admission to the hospital. Although the operations proceeded smoothly, they never ceased having convulsions and died a few hours after operation.

The fourth case of eclampsia which died was one treated by a physician who only operated on this one case in the entire series. He allowed this patient to remain in the hospital having convulsions from eight o'clock in the morning until two in the afternoon, before doing the operation. It would appear that she really did not have a fair chance. She died following the operation.

All of the other cases of eclampsia with convulsions, or of severe pre-eclamptic toxemia, have recovered. One of the seven cases died of pulmonary hemorrhage, due to pulmonary tuberculosis, two weeks after her operation. One case died in which the indication was placenta praevia. This patient was admitted in an exsanguinated condition, having been examined several times before admission.

She was given two blood transfusions and the operation performed. She died of sepsis a week later. Frequent examinations are fraught with the greatest danger, if caesarean section is to be used.

These figures do not represent the results of one surgeon, or a group of surgeons. This is all of the cases seen by all of the doctors on the staff of the Mississippi Baptist Hospital, who have done surgical work of this kind. Our belief is that caesarean section offers a very valuable remedy in serious and complicated obstetrical cases. Again it must be emphasized that the case should always be handled from the beginning, so that if section should become necessary, the danger of sepsis from frequent examinations will be largely eliminated. This is unquestionably a most important point. Of course, the most important is the fact that the operation should only be done by a competent surgeon or operating obstetrician in a well-equipped hospital. Also, an earnest appeal is again made for the surgeons doing this kind of work to become thoroughly conversant with the DeLee operation, which offers many and great advantages over the classical high section. During this fourteen and one-half years, no cases have been operated upon at the Mississippi Baptist Hospital for ruptured uterus in which the previous caesarean section had been done in the Baptist Hospital. Two cases were admitted to this hospital with a ruptured uterus in which the former operations had been done elsewhere. Both of these patients recovered following abdominal section.

No doubt some highly trained obstetrical specialist may possibly obtain just as favorable results in these seriously complicated cases by vaginal delivery. We think it important for each surgeon to recognize his own limitations and use that method which has given him the best results. After all our object is to save the life and health of the mother and baby. We began to use the DeLee operation about five years ago. In the last two or three years we are accustomed to make the transverse incision in the cervix, which we think is a distinct advantage. Seventy-two of these operations have been done by the low DeLee method. In these cases there has been only one death. This death was one of the cases of eclampsia which came in having hard and repeated convulsions, and continued to have the convulsions for two or three hours after the operation until death.

The postoperative complications are far less after the low operation. It is gratifying to know that we have had no case of eclampsia with convulsions in the past fourteen months. This proves that the educational campaign which has been carried on by the Board of Health and other organizations is bearing fruit. Certainly eclampsia is nothing like as common now as it was five or ten years ago. Both the physician and the patient recognize the early signs of danger, and the cases are now treated before convulsions ensue. This educational campaign which has been carried on, will no doubt save many lives through the coming years.

The Value of Bronchoscopy in General Medicine*

MURDOCK EQUEN, M.D.
and
FRANK NEUFFER, M.D.
ATLANTA, GEORGIA

It is indeed a pleasure to be your guest today. Sometime ago Dr. Robin Harris of Jackson said that he thought it would be nice if I, a native Mississippian, addressed you. A large part of my early life was spent in Mississippi and Dr. John Davis, who established the Columbus Hospital, used to take me to ride with him when he made calls. At that time we discussed medicine as a vocation and his influence had a great deal to do with my studying medicine. I notice in the audience Dr. Jim Lipscomb and Dr. Daniel Staton, of Columbus, old friends, who also bring back memories of yesterday.

Though the movies last winter made Rembrandt a name familiar to the public, you have long been familiar with his famous "Lesson in Anatomy." This painting of Dr. Nikolaas Tulp dissecting the body of Adriaan Adriaans, surnamed "The Kid," has made these two gentlemen immortal. Dr. Tulp was quite a physician. Among his papers is a case report of a young woman in Delft who had coughed for seven years. One day in a particularly violent spasm of coughing she coughed up a hazel nut she had aspirated years before and she promptly recovered.

A child had been in a tuberculosis sanatorium for six months when first seen by us, but no positive diagnosis had been made. The x-ray of the chest had been negative and no tubercle bacilli had been found in the sputum. A lateral examination of the chest revealed the presence of a pin back of the heart almost resting on the diaphragm. Following the removal of this pin under biplane fluoroscopic guidance there was a complete cessation of the cough and fever.

These two cases separated by some three centuries illustrate beautifully the inadvisability of making a diagnosis of pulmonary tuberculosis from a history alone. Even the coughing up of blood is not definite proof of tuberculosis as the patient may have a cancer, bronchiectasis or some other disease of the lung. Whereas, of course, tuberculosis is the most common chronic disease of the lungs and should always be suspected, now that we have the tuberculin test and the x-ray we can often disprove the presence of tuberculosis early and we should study the case more carefully and find out what is at the root of the trouble.

If Dr. Tulp had had an x-ray available, of course, the hazel nut would not have cast a shadow as it is of vegetable origin, but it would have been possible to suspect very strongly from chest changes that a foreign body was present. The case of the child in the tuberculosis sanatorium brings out vividly the importance of repeated x-rays as the pin was hidden in the earlier ones by the shadow of the heart.

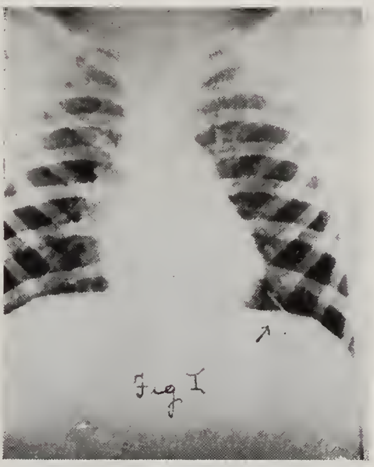


Fig. 1. A straight pin is shown in the base of the left lung. It was removed bronchoscopically under guidance of a biplane fluoroscope. Uneventful recovery.

Jackson has successfully diagnosed tuberculosis by the aspiration of bronchial secretions and the subsequent inoculation of guinea pigs in the presence of a clinically negative chest. An examination of the peritoneum demonstrated the presence of tubercle organisms. These have also been demonstrated in the secretions of a lung abscess. An old fibroid tuberculosis may be materially aided by bronchoscopic drainage. Myers has shown that an individual may have a negative sputum and yet bronchoscopic examination may show the presence of a tuberculosis ulcer, whose biopsy will demonstrate the tubercle organism.

---

*Read before the Section on Medicine at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 11, 1937.

Last fall, Dr. Blackford referred to me a young man who had been under his observation for several years. The original diagnosis, on account of repeated profuse hemorrhages, had been pulmonary tuberculosis but Dr. Blackford concluded that this diagnosis was unfounded and by medical measures had kept the boy at his job. A recurrence of the hemorrhages convinced him that it was necessary to find the source. We discovered varicose veins of the trachea just below the larynx.

Lung abscess is another grave and not uncommon condition which can often be cured by bronchoscopic treatment. When the lung abscess is caused by the presence of a foreign body, the removal of the foreign body with intratracheal suction, which we have emphasized so often in the last six years, may be expected to result in cure. When the abscess is located in the periphery it may be necessary to do a thoracotomy with external drainage, but sometimes dilating the bronchus connected with the abscess will result in a spontaneous cure. Bronchiectasis, which may be defined as multiple lung abscesses, may be treated with frequent bronchoscopic drainage, and the instillation of antiseptics but this is palliative and not curative. Bronchoscopic drainage is of particular value in the cases which have single abscess cavities with a well defined wall rather than in the multiple type. Lukens states that lung abscesses which follow surgical procedures elsewhere are much more amenable than those occurring primarily in the lung. The patient's chances for recovery are enhanced by early bronchoscopic drainage rather than when the procedure is delayed. The reason for this is the longer the abscess is present the thicker its wall becomes with less possibility of an accompanying collapse following its aspiration. Of course, as a preliminary it is important to clear up all foci of infection in the paranasal sinuses and the throat.

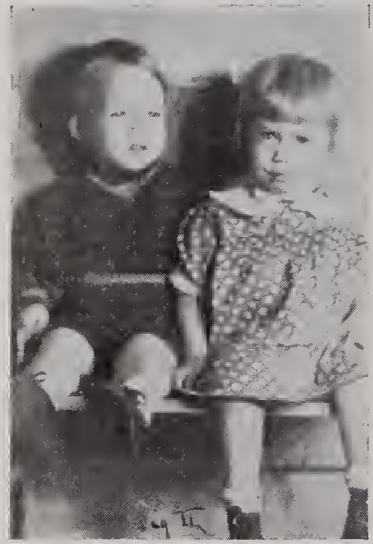


Fig. 2. Marked suppurative tracheobronchitis of streptococcic origin that necessitated tracheotomy for repeated intratracheal drainage. Recovery in both cases.

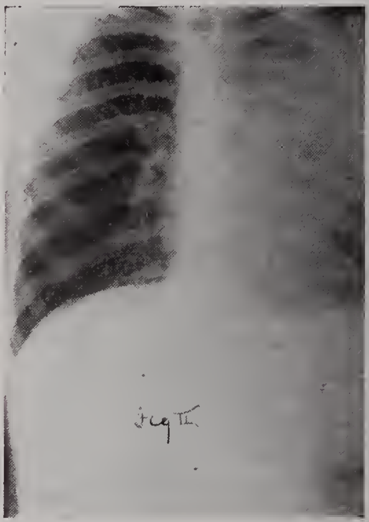


Fig. 3. Endobronchial neoplasm in left main bronchus, causing massive collapse of the lung. Biopsy: non-malignant.

There is considerable evidence to show that pneumonia is often secondary to the plugging of a bronchus with mucus and it has been seriously advised in atelectasis and early pneumonia, particularly in atelectasis, that bronchoscopic aspiration should be done in the hope of relieving the atelectasis and aborting pneumonia. This has been done successfully more than once, but we are not advocating it as a matter of routine. Indeed now that one can administer carbon dioxide postoperatively it would not seem to be necessary often.

It is a mistake to treat a patient more than three weeks for hoarseness without laryngoscopic examination. The hoarseness may be due to paralysis of the recurrent laryngeal nerve or to instrinsic causes such as tuberculosis, syphilis, benign tumors or cancer. Dr. Beck has reported one case in which syphilis, tuberculosis, and cancer were all present in one larynx, but usually only one is enough to explain the hoarseness. In cases of syphilis, expert medical treatment offers the best prospect, but the laryngologist may aid the internist with cauterization of tuberculous ulcers.

In the presence of a growth the value of a biopsy is too well known to stress. Like Crile, we are growing more and more to believe that in early cases of laryngeal cancer the surest chance of cure depends upon a total laryngectomy. It is surprising how happy these patients can be and what excellent health they do enjoy after this operation. We have been fortunate in not having an operative death, though we must admit that one of our patients died about two years later from a recurrence of the growth.

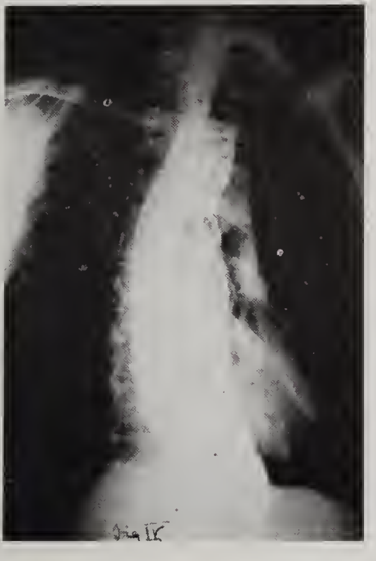


Fig. 4. Cardiospasm. Note the even dilatation of the esophagus, especially the smooth borders of the lower part. Air dilatation of the cardia. Recovery.

One of Jackson's golden axioms is "All that wheezes is not asthma." A wheeze, closely simulating asthma, may be due to stenosis of a bronchus, an obscure foreign body or a pedunculated tumor producing a ball valve action. Even in cases of true asthma the aspiration of thick tenacious mucus sometimes gives good results. It would seem to us that if the patient begins to suffer from asthma in middle life, if he is not allergic to the commoner antigens, and if his cardiovascular system is in good shape, that he is entitled to a bronchoscopic exploration.

There is time for only a very brief discussion of the esophagus, whose salient symptom is that of obstruction. Some years ago we presented the case of a little girl who had swallowed a bobbin. On account of the complete obstruction and the scar tissue formation it was necessary to do a gastrostomy to feed the child, and to remove the bobbin by sharp dissection.

Carcinoma of the esophagus should be suspected when a patient of middle age suddenly begins to complain of dysphagia. Hippocrates described the sensation of a lump in the throat so common in neurotic young women and this syndrome of globus hystericus has caused many patients with carcinoma of the esophagus to be treated for many months with belladonna and sedatives. Vinson thinks that when a patient has trouble swallowing a lump that he is neurotic but when he has difficulty in swallowing food that a real lesion is present. Cardiospasm is one of the most

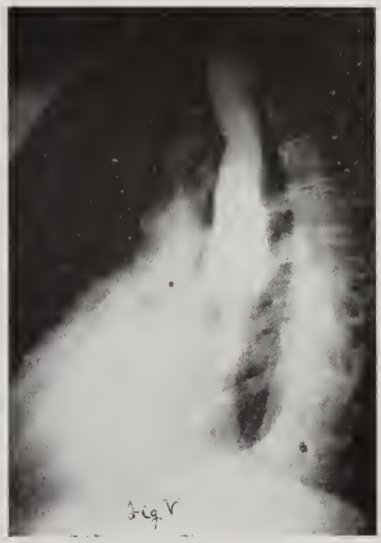


Fig. 5. Carcinoma of the lower third of the esophagus. Note that the esophagus is not so greatly dilated as in cardiospasm and that roughening is marked at the point of obstruction. Biopsy: Epidermoid carcinoma, grade 4. This case was hopeless.

satisfactory conditions in the upper alimentary tract to treat. Whereas we know practically nothing about the etiology of cardiospasm, we do know that dilatation of the cardiac orifice of the stomach may give instant relief. This dilatation may be done either by air or by water and it may be repeated as often as necessary.

Esophagitis, peptic ulcer of the esophagus, hernia of the stomach through the esophageal opening in the diaphragm are also occasional causes of obscure indigestion and such things may even at times simulate angina pectoris.

Direct inspection of the gastric mucosa is also being introduced and it may be that it will prove a most valuable aid in the early diagnosis of carcinoma of the stomach. We recently demonstrated an ulcerated bleeding area just below the cardiac entrance of the stomach. A biopsy was taken and the area cauterized with strong silver nitrate. Biopsy was reported as simple chronic inflammatory tissue. There was no subsequent hemorrhage and the patient made a rapid recovery.

As Jackson states, the bronchoscopists claim no magic healing power but they do wish an opportunity to inspect the interior of the lung and esophagus and report their findings to the internist and surgeon.

It is to be hoped that in the near future that every large hospital will have a well equipped bronchoscopic clinic, which will enable the staff to diagnose early obscure conditions of the chest and upper alimentary tract.

Ponce de Leon Eye, Ear and Throat Infirmary.

The Management of Labor—A Plea for the Expectant Mother*

B. LAMPTON CRAWFORD, M.D.
TYLERTOWN, MISS.

When the chairman of this Medical Section requested me to prepare a paper on this subject I agreed, because I felt sure it was a subject that would be of interest to every one who has earned the right to place M.D. after his name, for when we decided to become doctors we were supposed to have dedicated our lives to the service of humanity. When God created man, he made him in the image and likeness of the Supreme Being. What greater service could we render than to attend some poor mother, laboring almost unto death and spilling her very life's blood in an effort to bring into the world a tiny being made in the image of God, and try in every way possible to alleviate her suffering? "A great privilege."

Throughout medical history, a most noticeable indifference to the comfort and safety of mothers in childbirth has been manifest by a great part of the medical profession. In all probability the early attitude of the profession was in part due to religious influences, the clergy being convinced because of Genesis 3: 16, that it was God's will that women should suffer. Even Martin Luther, who claimed to be a reformer in other things, said of mothers, "If women become weary of bearing children or even die, let them die, they are here to do it." Even 300 years later, when Jas. Y. Simpson advocated the use of chloroform to relieve the pangs of childbirth, he was condemned as sacreligious, not only by his profession, but by the clergy as well. When Chamberlen invented the obstetrical forceps, he had no thought for the sufferings of the desperate and dying, but only of his own personal profit, so that he and his family kept the discovery a secret for three generations. And when after 1840, Oliver Wendell Holmes and Semmelweiss pleaded so earnestly with the profession to listen to their proofs that most mothers could be saved from infection and death by the practice of simple cleanliness, a deaf ear was turned to their entreaties; and until the discoveries of Pasteur and Lister were grudgingly accepted by the profession nearly 40 years later no steps were taken to correct this ignorant attitude. In no other branch of medicine and surgery has such evident indifference to the suffering and safety of humanity been manifest, and that indifference on the part of a considerable portion of the medical profession has endured to this day. In fact, in recent years, because of the advent of surgery in obstetrics, it has become more manifest.

As a preface to what I may say on this subject it seems fitting that I say a few kind words in behalf of the most important member of the human family, Mother:

"Oh Mother, when I think of thee
'Tis but a step to Calvary.
Thy gentle hand is on my brow.
'Tis leading me to Jesus now."

Statistics show that of every 250 women who become pregnant, at least one dies. Seven per cent of the deaths of women between the ages of twenty and forty years are due to puerperal infection. Conservatively estimated 20,000 women die every year in the United States from the immediate and remote effects of childbirth.

Labor may be defined as that function by which the fetus and secundines are expelled through the natural passages, the retrogressive changes in the genitals started, and the secretion of milk inaugurated. What influnces the uterus, which has carried its burden so long, suddenly and violently to expell it, is not known. Evidently the uterus has become sensitized by some internal secretion from the pituitary or ovary. It seems to be established that the presence of estrin, primarily the follicular hormone, and present in the blood of all pregnant women, is ncessary in quantity before any product of the posterior lobe of the pituitary can act.

Properly speaking, the management of labor should begin with the birth of the mother —a mother with healthy parents, correctly reared, free from preventable diseases and nourished with food well balanced for bodily needs, should have a normal pelvis and all of the organic functions should be performing their part in a vicarious relation to each other. In other words, a healthy, normal woman should have no trouble in giving birth to a healthy, normal child.

---

*Read before the Section on Medicine at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 11, 1937.

The young woman with her first pregnancy should have a very careful examination. The pelvis should be measured to determine whether there are any abnormalities, the blood pressure taken, urinalyses made, heart checked, and the diet regulated. A Wassermann test should be made in all cases. Proper treatment for the pregnant woman with syphilis will prevent most of the cases of abortion and will save the baby from some mental or physical defects. She should be requested to return monthly for urinalysis and blood pressure examinations; every two weeks during the last two months.

Adequate prenatal care of the mother prevents many complications of labor and strives to separate the normal from the abnormal case. The greatest accomplishment of prenatal care has been the prevention of eclampsia. An investigation of over 900 maternal deaths by the Massachusetts Department of Public Health reveals that a lack of adequate prenatal care was evident in 89 per cent of the deaths. More than half of these fatalities were caused by septicemia, toxemia and hemorrhage, which are usually preventable.

When I began the practice of medicine, I saw very few of my obstetrical patients until I was called to deliver the baby. Then I saw eclampsia quite frequently. Now since I routinely make urinalyses and take blood pressure it is seldom I fail to make early diagnosis of toxemia and prevent eclampsia. I have not had a case of eclampsia in several years, although I have more obstetrical cases than formerly.

No other division of medicine is filled with greater potential dangers to the patient and anxiety to the physician than is obstetrics. The terror of hemorrhage, the eclamptic convulsion and the ruptured uterus are only some of the distressing conditions with which the obstetrician has to deal.

The sane attitude in obstetrical practice is essentially a conservative one. The obstetrician stands by and watches a normal physiological process, stepping in to aid the process only when the resources of nature are not sufficient to complete it. In 95 per cent of cases, labor is a normal process. The purpose of the attendant should be at all times to protect the parturitrant from injury, assisting rather than interfering with the normal physiological process. High maternal morbidity and fetal mortality are due to unnecessary interference with normal labor, failure to choose the proper method of delivery and failure to recognize the indications for interference.

When the patient begins to have regular rhythmic pains and the cervix has begun to dilate we prescribe ¼ grain of morphine sulphate to relieve the pain. Chloroform is administered in the second stage of labor, pushed to almost complete anaesthesia when the head is bulging the perineum. This treatment relaxes the soft parts and greatly lessens the danger of laceration. If the head is large and it is seen that a tear of the perineum is imminent, it is much better to do an episiotomy. Care should be exercised to repair all damage done to the perineum. A rest of 20 or 30 minutes between the second and third stages will allow the uterus time to contract and the placenta to separate. Pressure on the fundus and slight traction on the cord will remove the placenta with facility. A careful obstetrician will see the cord dressed with sterile dressings and the newborn baby's eyes washed with boric solution and one drop of 1 per cent solution of nitrate of silver in each eye. Nearly one-third of the blind people in the world have lost the light of day because of the ignorance or carelessness of the attendants at the time of birth.

The nurse or attendant should be instructed as to the care of the perineum, when there has been a laceration, and sutures introduced. Our plan is to use a pitcher douche of 1 to 3000 bichloride of mercury solution after the patient voids or has a bowel movement.

According to an English authority, D. L. Colebrook, 70 per cent of the fatal cases of puerperal sepsis are due to the hemolytic streptococcus, particularly associated with recent acute infections of the respiratory tract.

The vagina is normally protected by its own peculiar bacterial flora which develops an acid strong enough to kill the usual pyogenic bacteria. Dr. De Lee has said that more women die as a result of mistakes made in the third stage of labor than in both the first and second stages combined. These errors are failure to recognize and repair properly any damage done during the second stage, failure to deliver the placenta intact and to see that the uterus is contracted properly, failure to instruct a competent person to leave in charge of the patient.

Failure to realize the indications for caesarian operation is one of the worst mistakes made in the first and second stages of labor. Indications for caesarian operation as I see it are (a) anything that delays labor beyond the usual time and thereby endangers the life of the baby or mother; (b) eclampsia, if the pulse is over 100 and patient has had 12 or more convulsions and no dilation, otherwise conservative treatment; (c) placenta previa, with hemorrhage and not much dilatation, if pregnancy sufficiently is advanced to expect child to live; (d) contracted or undeveloped pelvis; (e) undilatable fibrous cervix; (f) hydrocephalus (if diagnosed) (save mother bad laceration).

Caesarian operation more frequently done would save the lives and health of many mothers and prevent cerebral hemorrhage, a condition which helps fill our feeble minded schools. As proof of the safety of this operation, we have had 25 caesarian deliveries without a fatality.

Some complications of labor I have met are: eclampsia (19), placenta previa (7), post partum and prepartum hemorrhage (21), transverse presentation (6), hydrocephalus (3), fibroid tumors (6), adherent retained placenta (25), hour glass contraction of uterus (7), enlarged fetal liver, usually syphilitic, contracted pelvis (4), rigid fibrous cervix (23), large (over-developed baby) (24), (one weighed 20 pounds, another 17½ pounds, acute indigestion (patient began to have active labor while at the dinner table, consequently digestion stopped), prolapsed fundus (3), and ruptured uterus (1).

We should commend Dr. Underwood for his effort to bring a postgraduate course of lectures on obstetrics within the reach of every doctor in Mississippi and it is gratifying to know that so many of the general practitioners have availed themselves of the opportunity to better qualify themselves to serve the expectant mother.

If one were to read in the morning paper that "ten thousand women were to be put to death for the crime of being mothers" how dumfounded he would be. Yet in a very real sense that gives a picture of the truth, for according to Dr. Louis I. Dublin, the distinguished statistician of the Metropolitan Life Insurance Company, 10,000 American women died in childbirth last year, who need not have died if they had had intelligent care.

The distribution of responsibility for preventable deaths is: physicians, 61 per cent; midwife, 2 per cent; and patient, 37 per cent. This is a challenge to the medical profession to provide ample prenatal and confinement care for all prospective mothers.

It is not sufficient for us to save our consciences on Mother's Day by casting a white carnation on the grave of the mother who died that her child might live; we should rather apply our acknowledge and experience so that these women need not die.

Since about two-thirds of the 2,200,000 babies born in the United States every year are born in their homes, we must still teach practical home obstetrics. In this day of good roads and fast automobiles, there is no reason why the obstetrical patient can not be safely cared for in her home.

Due to the fact that Mississippi is largely a rural state and rural obstetrics has long been regarded by many as poor obstetrics, it is interesting to note some statistics cited by Dr. Piper. In the registration area of the U. S. which includes 40 states, from 1918 to 1923, the death rate from puerperal causes per 100,000 population in cities over 10,000 was 17.3. In rural districts it was 13.5. The rate in Mississippi for this period was 24.2 for cities and 14.8 for rural districts.

"Of all branches of medicine, obstetrics at the top is most sublime, at the bottom, the most lowly."

DISCUSSION

DR. THOMAS R. BEECH (Laurel): I was very much pleased to hear Dr. Crawford's masterpiece, because he is one of these gentle-who does a great deal of obstetrics and good obstetrics in the rural home. Most of us Mississippi doctors have seen Dr. Crawford's photograph in *The Mississippi Doctor,* and he really does good obstetrics. Now, I believe that a great many of us can do better obstetrics in rural homes than we really do. I have been doing a rural practice, a very extensive rural practice, for several years. I do some hospital practice but most of my deliveries have been in the rural homes. I have been doing considerable obstetrics in the last several years, and I can see Dr. Crawford, in my imagination, as he goes way back 15 or 20 miles, over some little road that you can hardly get in and out of, delivering babies at one o'clock and at four o'clock in the morning by a lamp light. I have been all along the route, and am going along there yet. I do not know if I will ever be able to get away from it, but we can do good practice in the rural homes if we try.

It is my opinion that it is the welfare of the mother and child that we have visited in these rural homes that we should consider. We never know what kind of a serious accident we are going to have; we never know when we will have postpartum hemorrhage; we never know when we will make an examination and have to shake hands with the little fellow; yet we have all done those things. We never know when we are going to apply forceps and yet we can do it in the rural home almost as effectively as in hospitals, if we will take our time and do it right. I have done numbers of forceps in the home. I have had postpartum hemorrhages in the home, repair, everything almost that we can do in hospitals. It is awfully hard work when you are on a double bed with a lamp light, it is just a little bit harder than the average man will attempt to do. In other words, as I see it, in our offices and in our homes, we are a little bit too lazy to do the things we know how to do, and that we can do best.

I want to thank Dr. Underwood. I do think that he has been of great value to the men that are doing obstetrics, in bringing such men as Dr. Lapham to give us lectures on obstetrics. I have attended every one of Dr. Lapham's lectures given in Laurel and I enjoyed every one of them. I also think we should thank Dr. Underwood before we leave here for bringing men like Dr. Strong to us. I attended every one of his lectures in Laurel, and I went to Hattiesburg and attended a couple of them there, and always learned something worth while.

Many times when we are doing these forceps deliveries whether we are in hospitals or in rural homes, I have seen good men that I thought were excellent men, put on forceps and they looked like they got excited or nervous, and they got to pulling. Well, if you will just slip your forceps on, no need to tell you how to do it, when the time comes and when that pain comes down, just work with it a little, and just sit still, directly another pain comes and then relax your forceps and you can deliver that baby just as well at home as in a hospital. We can do versions in the homes, but it is hard work. You come out tired, with a backache, and we just dread the next one that comes along, and a great many times we neglect something. If we will put forth everything we can and give that mother and that baby every chance we possibly can, we will be able to do more good for obstetrics and general medicine than we have probably been doing before.

I spent four and a half years at the charity hospital in Laurel. I saw too many complications following deliveries. It is just awful, lacerated perineum, lacerated cervix, all those things, vaginal fistula. If we will just be cautious in doing forceps deliveries and versions I believe we will be able to eliminate a great many of these drastic results.

DR. B. L. WALKER (Magee): The paper just read by Dr. Crawford is an excellent one, and I enjoyed it very much.

The doctor has evidently been down the road and covered both sides of it. We have all had this kind of work to do, and according to statistics evidently we haven't been doing it right. We all feel proud of our country, our superiority over other nations, but sad to say we rate below all other leading nations in our field of obstetrics.

We are gaining in popularity yet there still remains a 65 per cent preventable mortality of our good mothers. What is the cause and where is the fault? We are told that Indian women of yesteryears could drop down by the side of the road, give birth to their babies and in a short while resume their travels. They were normal mothers with all the prequisites required for this ordeal. I don't know whether we had pathogenic bacteria in that day or not, but if we did we evidently had a mother fitted for the occasion. If this be true of the Indian women it seems to me that population and civilization, modern living and careless mixing have wrought a deadly change to our mothers.

The doctor told us much can be done toward preventing many deaths by a careful observance of all pregnant women coming under our observation; he told us about blood examinations, blood pressure readings, weight, etc. This is not all that is to be done. These expectant mothers must be taught the importance of these examinations; they must be taught what to eat, the importance of proper eliminations, rest and exercise. The proper handling of the toxemias will reward us many times. However, a few cases we can't relieve. Cooperation of both husband and wife is all important. As you all know we have husbands that look upon the birth of a child just as they do the birth of a calf—a natural process. It is a natural process if we have a normal mother, a normal pregnancy and normal conditions under normal circumstances.

My practice has been almost exclusively in the rural districts, deprived of many of the absolute necessities of life, but with kind nature as a good helper, and I am proud of the fact that I have had but few fatalities in many years. The difference in handling obstetrical cases of today and when I began thirty-seven years ago is as great as day from night. Horseback was our means of travel, and with obstetrical forceps wrapped in a towel, tied to the saddle, was the way in which we carried our instruments. Delivery with forceps in that day was crude surgery. I'm glad the essayist mentioned delivery with forceps. My experience with forceps has been very satisfactory. It requires more time, in some cases, to apply properly forceps than it does to deliver after applied. Forceps are made to *help* delivery and this should always be done under an anaesthetic, choloroform being my preference.

I have had everything the doctor mentioned along the line of obstructions except a ruptured uterus, and I trust to my Lord I'll never have a case of that kind.

In closing I want to thank Dr. Crawford for his excellent paper, and to broadcast to the world that all we can do is yet not enough for the expectant mother. Thank you.

Gonorrhea*

J. W. JACKSON, M.D.
BELZONI, MISS.

My attempt to present a subject about which I am so ignorant is made with an apology. The selection of it has been regretted many times. Moses' radical measure of having five thousand of his number who had venereal diseases executed is not so surprising. He certainly recognized the difficulty of curing such disease, and the futility of preventing its distribution. No doubt it is one of the wages of sin which affects the innocent and guilty alike. The disease is so common and yet so repugnant. It is freely discussed by the medical profession and by laymen, yet not much is seen printed concerning such. Not a great deal appears in medical journals. Too little advice is given concerning its prevention and too little information is given patients as to how to prevent complications. Many of us would rather dodge the issue than write of our experiences with handling these cases, because of our difficulties and disappointments in treating them. Generally it is easy to determine the presence of acute gonorrhea, but as Keys has said, "Only God knows when it ends."

Diagnosis of an acute case in the male is generally easily made. In the female it is not so easily made every time, especially in the home where both history and examination are unsatisfactory. To be ruled out are pyelitis, non-specific cystitis and urethritis, other pelvic pathology, and very frequently appendicitis. Of course, any of these may be co-existing conditions, but usually symptoms of the specific infection in the acute case predominate. To obtain a thorough past and present history, to do a complete examination including always pelvic, bimanual and speculum examinations if possible, and to verify physical findings by microscopic study of smears from Skene's glands, urethra, vagina, Bartholin glands if infected, endocervix, and of centrifuged specimen of urine, is no lazy man's job. Usually more than one of these parts are involved in the acute case. The essayist has treated one case where only the urinary tract became infected so far as could be ascertained. External genitalia were so swollen and edematous as not to permit of a vaginal examination. At no time could a discharge be seen issuing from the vagina, nor did examination following recovery reveal any sign of vaginitis or endocervictis. Because of mixed infections, chronic cases in both male and female present formidable problems as to diagnosis as well as to treatment and prognosis. All possible locations must be investigated. In the female material from Skene's glands and the endocervix seems to give the most satisfactory microscopic information. In the male that from the prostate usually is most reliable. Both methylene blue stain and Gram's method for examining materials from the same source are preferred by me. In infants five cases of gonorrhea have been diagnosed during the past twelve months by routine examination of dried urinary sediment. In three of these the parents had not noticed any discharge. In two discharge was not mentioned till close questioning was done. In none of the five girl infants was discharge seen in the vulva on initial examination. Not infrequently a woman will give as her chief complaints symptoms with reference to the digestive system. You find her with sheet drawn tightly over the head. She is shy and seclusive. Surely enough you elicit tenderness and rigidity in epigastrium or R. U. Q., but you will find the real trouble in the lower quadrants. Some writers state an incidence of as high as 30 per cent rectal infections in female gonorrheics. I have not looked closely enough to verify this percentage. Never had rectal gonorrhea in a male been seen by me till nineteen months ago. The anal canal was filled with bloody pus. Mucosa was red and elematous. Large internal and external hemorrhoids were present. Three internal fistulous openings were noted. In one ischio-rectal fossa was an extensive abscess. During two years he had visited several clinics. Not a single smear was made. His friends sent him to New Orleans where all of them were cured of "piles" without surgery. He received 48 injections, and boasted of having no more piles in giving his history. History of genito-urinary tract infection was negative. Examination here was entirely negative.

Many times a close study must be made before and much tact used when announcing a diagnosis, especially to certain women who have chronic and mixed infections. It must be positive, and in neurotic cases the consequences are to be considered. If they are mothers of young infants, I do believe the diagnosis along with detailed directions to avoid transmission of infection should never be withheld.

---

*Read before the Delta Medical Society.

Preventive treatment begins in the home, and involves individual study on the part of parents of their children with alert apprehension and correction of early misguided and perverted erotic tendencies. A physician who is a good psychologist may need be consulted. At puberty or shortly before to certain girls, perhaps all, and to all boys should be given the parental advice that intercourse besides being to them a vice is not essential to health and happiness, since the mental attitude largely governs their developing sexual urge and emotional instability. Then the dangers of venereal diseases should be mentioned. They know something already of the meaning of sexual intercourse, but they know nothing of these diseases. With few exceptions parents do not recognize any such responsibilities, or they are too busy, or too selfish, or too ignorant to study and attempt to guide the minds of their children. Many openly set bad examples.

In all high schools three or more lectures on venereal diseases should be given each session, preferably by physicians, who should be paid. It is up to us to impress upon the lay mind the absurdity of false modesty, and not till it accepts common sense admonitions, will venereal disease be curbed. Due emphasis should be placed upon the dangers of alcohol. The use of prophylactic measures and devices should not be advised for the youth. They have met with failure to the adult, usually when he is so drunk that he forgets to use them, or doesn't have a care.

No one would be so egotistic, or so foolhardy, or so ignorant as to say that he specifically cured any case of gonorrhea. Much can be done by exercising patience, gentle persistence and due regard for individual differences toward helping one cure himself or at least rendering himself symptom free and not capable of transmitting the disease to another. There is nothing to be added to your knowledge of treatment. Of most importance is a rigid routine of advising the patient as to the nature of his infection, the symptoms and dangers of complications and how to prevent them. It is well to make progress notes from time to time, and to maintain confidence, but it is definitely detrimental to stimulate too much confidence in drugs. As your patient improves, more than ever should emphasis be placed on proper cooperation. If possible, outside advice should be forestalled. The quick cure seeker should be passed up. The deliberate poor cooperator should be dismissed if he has been properly informed and warned. I am pessimistic about complications. Livermore, who treats his patients daily, ten years ago stated that 85 per cent of his cases developed complications. The majority of mine have them when they report for treatment.

Pelouze's conception of local treatment has meant a revelation to us. The general trend in the use of injections, irrigations, and instillations during the past ten years, has been toward conservatism. My ten years' ago injection of 15 to 30 per cent neosilvol or 10 per cent argyrol or one-half of one per cent protargol, five to six times daily, has been changed to 5 to 10 per cent neo-silvol or three to five per cent argyrol or one-quarter to one-half per cent protargol only once to twice daily and with instructions to release irrespective of minutes if any appreciable irritation is felt before the retention time is up. Warm potassium permanganate 1: 8,000—1: 5,000 solution as an irrigation in anterior or posterior gonorrhea of the male, given at intervals according to the tolerance and progress of the case, has stood the test of time. Occasionally a case will not tolerate irrigigations of any dilution in any amount. Usually blondes do not tolerate local treatment as well as do brunettes. As Pelouze advises us, the aim in the use of any chemical is to have it of such strength as only to stimulate local resistance, by virtue of its tonic effect; otherwise, the mucosa is more extensively destroyed, the submucous glands, blood vessels, and lymphatics, which are acting as second line of defense, are damaged, and the gonococci which have already infiltrated these structures pass more freely into the periurethral tissues along with other organisms present, with resulting abscesses and later strictures as scar tissue forms in nature's attempt to repair the damaged areas. In my experience it is encouraging to have noticed fewer periurethral complications during the past five years than had been seen prior to this period. Possibly the depression had something to do with this.

Cowperitis, prostatitis, trigonitis, seminal vesiculitis, and epididymitis are complications the occurrence of which in my opinion depend more upon individual variations in anatomy, local resistance, and the patient's care of himself than upon any mode of treatment by the physician. Shortly a case history will be read to prove this contention.

Conservatism in the local treatment of gonorrhea also applies in the female. Rest in bed and cleanliness are to be stressed. Large hot vaginal douches eight to twelve quarts begun at a practical time and given properly with bag twelve to sixteen inches above reclining patient are very valuable. It matters not so much what is in the water as it does how hot it can be tolerated. As with high temperature elevation devices for men, unfortunately most of us cannot afford the necessary equipment to give the Elliott treatments to women.

Gonococcus filtrate, prepared and described first by Clark, Ferry, and Steele, is unquestionably a most valuable agent and adjunct in treating both acute and chronic gonorrhea. This bouillon filtrate as you know is said to contain an exotoxin which is capable of stimulating the formation of specific antitoxin. During the past twenty-two months fifty-six cases have been given the filtrate by the writer. Too much should not be expected of any one item. While six to eight does usually relieve the majority and apparently produce clinical cure, a close check up with the microscope does not indicate a cure within three months. Unfortunately most of these 56 cases already had complications at the beginning of treatment, and many of them had minimum to moderate degree of involvment after three months. Pain, urgency, frequency, etc., are promptly lessened by one or two doses. Females seem to be relieved more promptly than males, and unfortunately no more is seen of most of them after the sixth or eighth dose. In certain cases, especially where local treatment was not well tolerated, only the filtrate was used. One negro man, who had lost 35 pounds in weight during three months of agony, groaned with every step and urination of blood. Irrigation could not be given. Twelve doses intradermally together with consistent prostatic massages relieved and enabled him to make a crop. In men the vesicles and prostate should always be examined during the course of their diseases and their treatments never neglected. Any number of doses of our famous filtrate alone will not eliminate these organs of their infection. Where secondary infection plays a big role and keeps the chronic case chronic, gonococcus filtrate cannot be expected to accomplish anything other than to aid in getting rid of gonococci. Here no doubt is where the new treatment is condemned by some as being worthless for any case. In the mixed infections alternating a non-specific protein such as neo-lacmanese with the filtrate affords advantage. It does not to me seem ridiculous to state that local infection elsewhere may in a definite and specific manner influence the chronicity of many such cases. Whoever places so much confidence in gonococcus filtrate, accepting it as a specific and a sure cure, as to neglect the necessary routine and individual details in managing his case, is certain to meet with disappointment. The writer has had no experience with the use of Lilly's gonococcus lysate.

The following case history is given because of an unusually mild urethritis, moderately severe early prostatitis, and vesiculitis which required persistent treatment over a period of four months:

March 22, 1936: White male, age 20, exposed 7 nights ago—yellow creamy discharge four days later which has become profuse. Moderate stinging and frequency of urination. No nocturia and no backache till today on lifting. No perineal comfort. P. H.: venereal infection, negative. Statement reliable. Urine has shown some pus on several examinations during past 6 years which was thought to be due to badly infected tonsils. P. R. 78, T. 99.1., first flow of urine very cloudy; second cloudy; third slightly cloudy. Much amorphous phosphate. Albumen, heavy trace. Second and third portions show 0-8 pus cells to H. P. F. Redundant prepuce, very red and swollen. Prostate gland smooth, slightly enlarged and slightly sensitive to very gentle massage. Microscopic of urethral smear: pus cells 3-plus; diplococci, gram negative, intracellular 1-plus and extracellular 3-plus; bacilli, gram negative 1-plus.

Perostatic smear: pus cells 4 - 20 (O.I.F.); diplococci, gram negative, intracellular, few and extra-cellular 1-plus; gram negative, bacilli few.

March 29. T. 98.4, P. R. 64. Discharge slightly increased. Rode 70 miles yesterday.

April 11. No discharge; urine clear; no symptoms other than aching of testicles today.

T. 99.4, P. R. 78. Nose, thorax and chest show evidence of acute respiratory infection.

Slight tenderness to pressure over right vas at external inguinal ring. Right portion of prostate and right seminal vesicle slightly larger and more sensitive to pressure than left corresponding parts. Massages will be given regularly at 4 to 7 days intervals. Prostatic smear: pus cells, 5-30 (O.I.F.); mononuclear cells, few; diplococci, gram negative, intracellular, occasional pair and extracellular 1-plus; bacilli, gram negative, few. All diplococci atypical till after 30 minute search.

4/13. No further pain in scrotum; no tenderness over vas.

4/21. Urine shows no pus or bacteria. Prostatic smear: pus cells, O-10 (O.I.F.); mononuclear cells, 1-10 (O.I.F.); diplococci, extracellular and intracellular, few atypical.

4/24. No complaints, urine clear of pus and bacteria. Prostatic smear shows occasional field of numerous pus cells but rare pair of gonococci.

4/30. First urine shows few shreds; 2nd, clear. No symptoms. Shreds show much pus but no bacteria. Prostatic smear: O-2 pus cells (O.I.F.); occasional bacillus. No gonococci

5/4. T. 99, P. R. 80, urine clear; left lobe of prostate and left seminal vesicle moderately indurated, and more sensitive than right corresponding parts. Response to massage is good.

5/19. Prostate gland much smaller, slightly nodular and less sensitive. Drains well on massage.

5/26. Prostatic smear: pus cells rare; mononuclear cells few; extra-cellular gram negative; diplococci few.

6/10. Urine clear. Prostate normal except for tenderness to firm pressure over upper portion of left lobe. Left vesicle slightly sensitive to deep pressure and slightly indurated over lower portion. Prostatic smear shows no pus, but an occasional pair of typical gram negative diplococci.

6/25. Smear, prostate: pus cells 5-12 (O.I.F.); bacilli 1-plus; diplococci, extra-cellular 2-plus and intracellular few.

6/28. Prostate smooth but slightly swollen.

7/3. T. 98.6, P. R. 72. Urine free of pus and bacteria. Prostate normal in size and consistency and empties readily. Smear shows O-5 pus cells to O.I.F. and few extracellular gram negative, atypical diplococci. Patient to C. C. C. Camp.

In this case thirty-three office visits were made, and progress notes were recorded each time. Temperature ranged from 98.1 to 100 degrees. Pulse rate was 64 to 92. Gonococcus filtrate was given in thirteen doses of 0.1 c.c. to 0.45 c.c. totaling 4.3 c.c. and producing skin reactions of 1½x1½ to 2¾x3 inches. It was given at five-to-fourteen-day intervals, but usually every seven days. Two doses of Breon's neo-lacmanese were used. In addition to massage local treatment consisted of permanganate irrigations and 5 per cent neo-silvol injections once to twice daily for a part of the time. Cooperation was usually good except on two occasions. His tonsils were removed June 1.

Prognosis seems to depend more upon individual local and general resistance than upon any method of treatment. This is mainly true of the acute uncomplicated cases in males where radical therapy makes a bad prognosis. Why do we see negro laborers who are well clinically and microscopically two months after onset of an infection without having had any form of treatment except maybe a few pills? Then why do we witness our blond white man carry his disease for months and years when he has had what is accepted as adequate therapy? Systemic resistance as indicated in some measure by the complement fixation reaction has to be considered. Locally the appearance of the mononuclear cells in the discharge in increasing numbers as the pus cells become less means gain in resistance, yet in some cases of long standing these cells can be found in larger numbers than the pus cells, but they usually do contain what gonococci are not extracellular. What is the significance of finding atypical gram negative diplococci long after our patient is clinically well? They are often seen at various times when the infection is active, and seem to persist in certain cases indefinitely. Can it be that these become symbiotic with other bacteria? Can they in the future produce any local or systemic disturbance in the host? Can these by transmutation become typical organisms capable of infecting another without exciting any active disturbance in the host?

My conclusion is that there is much to be learned about the gonococcus and gonorrhea.

MISSISSIPPI STATE MEDICAL ASSOCIATION

Organized 1867

OFFICERS

President	W. L. Little, M.D., Wesson
President-Elect	Joseph E. Green, M.D., Laurel
Vice-Presidents	F. S. Hill, M.D., Grenada Lawrence W. Long, M.D., Jackson R. F. Ratcliff, M.D., Lucedale
Historian	Leon S. Lippincott, M.D., Vicksburg
Speaker	J. P. Wall, M.D., Jackson
Secretary	T. M. Dye, M.D., Clarksdale
Treasurer	E. LeRoy Wilkins, M.D., Clarksdale

COUNCIL

First District	J. W. Lucas, M.D., Moorhead
Second District	L. L. Minor, M.D., Rt. 4, Memphis, Tenn.
Third District	R. B. Caldwell, M.D., Baldwyn
Fourth District	T. J. Brown, M.D., Grenada
Fifth District	W. H. Watson, M.D., Brandon
Sixth District	H. Lowry Rush, M.D., Meridian
Seventh District	J. Gould Gardner, M.D., Columbia
Eighth District	W. H. Frizell, M.D., Brookhaven
Ninth District	D. J. Williams, M.D., Gulfport

COMMITTEES

Constitution and By-Laws: W. H. Frizell, M.D., Brookhaven; J. Rice Williams, M.D., Houston; W. W. Crawford, M.D., Hattiesburg.

Budget and Finance: J. B. Howell, M.D., Canton; B. S. Guyton, M.D., Oxford; D. C. Montgomery, M.D., Greenville.

Public Policy and Legislation: W. H. Anderson, M.D., Booneville; F. J. Underwood, M.D., Jackson; Henry Boswell, M.D., Sanatorium.

Publication: Leon S. Lippincott, M.D., Vicksburg; D. W. Jones, M.D., Jackson; G. S. Bryan, M.D., Amory.

Program: T. M. Dye, M.D., Clarksdale.

Isolation Hospitals: H. F. Garrison, M.D., Jackson; J. Gould Gardner, M.D., Columbia; H. C. Ricks, M.D., Jackson; W. H. Anderson, M.D., Booneville; John Darrington, M.D., Yazoo City.

CHAIRMAN OF SECTIONS

Medicine	L. J. Clark, M.D., Vicksburg
Surgery	J. Gould Gardner, M.D., Columbia
Hygiene and Public Health	H. C. Ricks, M.D., Jackson
Eye, Ear, Nose and Throat	Van Dye Hagaman, Jackson

ADVISORY TO WOMAN'S AUXILIARY

W. L. Little, M.D.,	Wesson	Henry Boswell, M.D.	Sanatorium
Joseph E. Green, M.D.,	Laurel	T. M. Dye, M.D.	Clarksdale
T. J. Brown, M.D.	Grenada		

Mississippi State Medical Association

Leon S. Lippincott, M.D., ...Editor
D. W. Jones, M.D., ...Associate Editor
G. S. Bryan, M.D., ...Associate Editor

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

EDITORIALS

WHY NOT IN MISSISSIPPI?

Mississippi could well follow the lead of Florida in requiring the legions who call themselves or are called "doctor" to let the public know what kind of doctors they are. The regular members of the medical profession, who have had to graduate from high school, go to college for two or more years, spend four years in a medical school and one or two more years in hospital training, and then pass the examinations for license by the State Board of Health, deserve some protection from the state that sets up such high requirements. The public has a legal right to know what "doctor" stands for.

There was the old practitioner of medicine who kept his car in a public garage. One morning when he called for his car, the garage attendant greeted him with "Good-mornin' Doc." Said the doctor, looking over his glasses, "Young man, I spent many years and much money to get my degree. When you speak to me, you say *Doctor.*"

There is the easy-going custom that has grown up through the years of applying the term "doctor" to every boy who announces that he may sometime study medicine, maybe, to every druggist's clerk, to every charletan who may hold himself out as a healer. Preachers are called "doctors" whether in reality they have a doctor's degree or not.

The law now in effect in Florida follows:

Senate Bill No 154

A Bill To Be Entitled

An act to require practitioners of every kind or branch of medical and / or material healing arts to place and keep at the entrances of their offices or usual places of business words or proper abbreviations denoting the particular kind or branch of the medical and / or material healing art they are licensed to practice.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Every person licensed under the laws of the State of Florida to practice medicine, surgery, osteopathic medicine, chiropractic, naturopathy, chiropody, pediatry, or any other branch of the medical and / or material healing art, whenever actively engaged in the practice of same, or whenever holding himself or herself out as a practitioner of same, shall cause to be placed and kept in a conspicuous place at each entrance to his or her office or usual place of business, words or proper abbreviations, in intelligible lettering not less than two and one-half inches in height and one inch in width clearly denoting the particular kind of branch of the medical and / or material healing are he or she is licensed to practice under the laws of the State of Florida.

Section 2. Any person convicted of a violation of this chapter shall be punished by a fine of not more than one hundred dollars or by imprisonment in the county jail for a period of not more than six months or by both such fine and imprisonment.

Section 3. All laws and parts of laws in conflict herewith are hereby repealed insofar as they conflict with this act.

Signed by the Governor May 25, 1937.

A few years ago a bill with somewhat similar purposes was presented in the House of Representatives of Mississippi. It provided, following the Canada law, that no one should hold himself out as a "doctor" unless he was a doctor. The House recognized the simple justice of the bill and passed it without serious opposition. BUT—before it came up in the Senate, probably everyone in the state who wanted to be called "doctor" without legal right had lobby pressure in high degree working day and night. The result—amendments made the bill unrecognizable. Its honest purpose was lost.

Most of us are proud of our degree "Doctor of Medicine." We are entitled to be called "Doctor." There are other honorable degrees, Ph.D., D.D., LL.D, and others which entitle their holders honestly to be called "Doctor."

Respectfully — Attention: Committee on Public Policy and Legislation.

IS THE DECLINE IN TUBERCULOSIS ARRESTED?

The New York State Journal of Medicine of July 15 raises the question, "Has the decline in the death rate from tuberculosis been stopped?" Provisional mortality rates for

1936 provide reason for the question.

For many years past we have registered steady and rapid improvement in the mortality from this cause, so much so that we have been lead to hope that in the not too distant future, this disease would be relegated to a minor position among the causes of death, says the *Statistical Bulletin* of the Metropolitan Life Insurance Company.

Through the courtesy of state health officials, the Metropolitan Insurance Company has received provisional mortality figures for tuberculosis for the year of 1936 form 40 states. Of these, 19 reported a mortality higher than for 1935, and 19 reported lower figures. Two showed no change.

Whatever the final figures, the margin of increase or decrease will be small. It is evident that if there is not an actual rise in incidence, the velocity of decline of tuberculosis mortality will be definitely lower than for a number of years.

Is the current status of tuberculosis death rate an aftermath of the depression? Has there been an impairment in American vitality?

It certainly is not due to any lessening of efforts towards tuberculosis control. It is equally clear that what is now called for is an intensification of the work of those responsible for protecting the public health and, more particularly, even greater concentration upon the control of tuberculosis.

The record of past years in the attempt to control this disease has been so favorable that there should now be no hesitation in carrying the effort to a successful termination. It still will require much money and thought. The present picture is an excellent steadying influence against undue optimism which may have resulted from the rapid improvement in the tuberculosis situation in the last ten years.

MEDICAL EXAMINERS INSTEAD OF CORONERS

The New York Association of Police Chiefs, July 29, unanimously adopted a recommendation that New York State's county coroners be supplanted by medical examiners—who must be licensed and experienced physicians. It was pointed out that coroners in many counties are laymen, not qualified to conduct autopsies or properly to advise police in the solution of crimes; and that there is danger that such non-skilled officials may handicap rather than assist the ends of justice.—*New York State Journal of Medicine,* Sept. 1, 1937.

The medical examiner system has proved its value in a number of cities and counties of the nation. It often takes years to effect a change from outdated methods. Why not think about it now in Mississippi?

THE SOCIAL SECURITY TAX

It appears that doctors who employ one or more individuals in the pursuit of their professional activities were required by the provisions of the Social Security Act to submit to the Bureau of Internal Revenue proper forms accompanied by tax for the first six months of 1937 before July 31. Subsequent returns must be submitted at regular quarterly intervals.

In the Journal of the American Medical Association of July 24, in the Organization Section, was printed a warning from the Bureau of Legal Medicine and Legislation stating that if doctors did not attend to this matter, they would be liable to rather severe penalties.

The ordinary physician's tax is 1 per cent of the employees' pay. After deducting this 1 per cent from the employee's wages, the doctor becomes the custodian of federal funds for which he must account. Doctors interested in hospitals who have eight or more persons on their payrolls must pay a tax as well as collect the tax from employees.

The tax is not only upon actual money paid but if clothing, lodging and food are part of the compensation for services rendered, then their value must be determined and they become subject to tax. The same applied to commissions and bonuses.

The provisions of the Social Security Act have to do only with the technical employees of the physician. They do not apply to domestic service, nor to employees in organizations that are exclusively charitable, religious, educational or literary in character.

Some physicians are likely to be so busy that they may neglect to keep up with new laws. If, by chance, there are any such in Mississippi, it would be well now to check up as to where you stand with the Social Security Act.

PROTAMINE ZINC INSULIN

In the July 15 number of the *New York Journal of Medicine,* Edward Tolstoi, of the New York Hospital and the Department of Medicine of Cornell University Medical College, calls attention to the dangers of sudden, severe prolonged hypoglycemic reactions that may follow the use of the protamine zinc insulin in the treatment of diabetes mellitus. He calls attention to the fact that in the claims that "hypoglycemic reactions following the use of protamine zinc insulin are not so frequent as those following the use of unmodified insulin," the subject of reaction has been minimized. Reactions may set in without the usual prodromes familiar to those who have used the unmodified insulin and sweats need not necessarily be present. The time of onset is not predictable as reactions may occur as soon as ten to twelve hours, and as late as twenty-four hours. This unpredictability of maxium effect creates a feeling of insecurity on the part of the patient and a state of apprehension on the part of the physician.

Other authors have recognized the hazard of the subtleness of protamine insulin reactions and emphasize the importance of close watching of the patients receiving it. Until more facts are known, it seems imperative to inform the patient receiving prota zinc insulin that he should not wait of the well-known symptoms of insulin shock before treating himself. Any vague or unusual symptom demands immediate treatment.

We who are using insulin know that all of the above is a distinct difficulty in treating patients and especially those patients "afraid of insulin" who are being placed upon it for the first time. Care is necessary.

SCIENCE AND INTERNATIONAL PEACE

Professor Sir Edward B. Poulton, president of the British Association for the Advancement of Science, in his address to the British Association September 1, 1937, expresses the hope that through the findings of science there may yet come an end to international war. While in the words of the late Professor Scott Holland, "To say that a man cannot be made good by Act of Parliament is such an obvious truth that people forget what an outrageous lie it is!" thoughts on the development of hidden powers within by the educating influence of social environment sugge the possible solution of the greatest problem by which we are faced—the end of international war.

Michael Foster, in his address at Dover in 1889, after speaking of progress in the material of warfare was led to believe that, "happily, the very greatness of the modern power of destruction is already becoming a bar to its use, and bids fair—may we hope before long?—wholly to put an end to it; in the words of Tacitus, though in another sense the very preparations for war, through the character which science gives them, make for peace."

And quoting Sir Richard Owen, in an address delivered to the twenty-eighth meeting at Leeds in 1858—a passage which makes a special appeal at a time when the Brittish and American Associations are confidently hoping to strengthen still further the bonds of sympathy and mutual appreciation by which they have been happily united for so many years, referring to the transatlantic telegraph, "We may confidently hope that this and other applications of pure science will tend to abolish wars over the whole earth; so that men may come to look back upon the trial by battle between misunderstanding nations, as a sign of a past state of comparative barbarism; just as we look back from our present phase of civilization in England upon the old border warfare."

With all terrible disappointments, there has still been great progress, and "a time will surely come, and may it come quickly, a time which shall prove that the visions of the young and the dreams of the old were prophetic of a glorious reality."

DENTAL INFECTIONS

"We look to various foci of infection for the cause of many bodily ills. The teeth have been convicted on several counts, although, fortunately, the pendulum seems to have swung to a more conservative viewpoint with regard to the wholesale extraction of teeth under suspicion. The relation between dental sepsis and rheumatism is not as modern a discovery as we are apt to believe, for almost twenty-five hundred years ago Hippocrates cured a patient with rheumatism by the removal of a diseased tooth. The skeleton of the Neanderthal man who lived at the close of the glacial period, about one hundred and eighteen thousand years ago, shows dental caries and progressive arthritis. The gorilla-like Rhodesian man had decayed teeth and alveolar abscesses with destruction of bone, although dental caries is comparatively rare in primitive animals and man.

"A very interesting observation in the World War among some of the East Indian regiments was the difficulty experienced in securing callus formation following fractures, and the large percentage of trench mouth (Vincent's angina). These men were Mohammedans and, because of the prohibitions of their religion could not use the tooth brushes that had been provided for them by Britain, as they were made from pig's bristles. Lacking proper hygiene, the teeth deteriorated and sepsis was prevalent. Later, olive sticks utilized in India for the cleaning of teeth, were distributed among the men. Improvement was noted in the mouth and gums and particularly in bone healing. It is undoubted that the blood is affected by septic conditions of the mouth and teeth and that apparently the chemical content is changed to such a degree that new bone formation is delayed.

"It is the experience of many that chronic sinusitis has been cured after the extraction of a diseased tooth. There were some who believe that certain cases of iritis have a dental origin. Dental suppuration, disseminated through the blood stream, may result in fatal endocarditis. Some kidney affections are of dental origin.

"Such an eminent authority as Ewing states that while there is little actual proof as to the cause of gastric ulcer, there is strong circumstantial evidence pointing, among others, to buccal infection. And Hurst believes that chronic gastritis is due to the swallowing of irritating material from infected teeth and, though less frequently, from infected tonsils, nasal sinuses, etc."—Captain William Seamon Bainbridge: The Interrelationship of Medicine, Surgery and Dentistry in Military and Civil Practice, The Military Surgeon, 81:3, September, 1937.

COWPOX FROM VACCINATION

The New York State Department of Health reports an interesting and unusual happening following vaccination against smallpox.

R. P., age 18, was vaccinated on June 7, the vaccination giving a primary reaction and running an uncomplicated course. . R. P. assisted in the care of a herd of about 20 cows. About June 18 it was observed that "the cows" (number not stated) were infected with cowpox. About June 28 several lesions appeared on the forearm of a young brother, T. P., who had assisted in the care of the cows. A physician who examined the lesions on Jul 2, stated that they had the appearance of "typical vaccination pustules." This boy also developed lesions on his face and, from July 2 to 5, was acutely ill, his temperature reaching 103 degrees F. When seen later the lesions had disappeared and he had "twelve typical vaccination scars" on his forearm and two on his face. About July 5, M. P., a thirteen-year-old boy who also had been in contact with the cattle, developed a "vaccination lesion" on his hand. This apparently ran an uncomplicated course and left a typical scar.

The only other member of the family who handled the cows was F. P., the father. He had been vaccinated four times, the last time about 25 years before. He was not infected. Other members of the family, who did not come in contact with the cattle and were uninfected were the mother, vaccinated about 40 years before, an adult son, and two younger children, none of whom had been vaccinated.

One of the cows, which apparently recovered ultimately, was at one time in such a condition that it was believed she would have to be destroyed. At this time Mr. F. P. threatened to sue the physician who had performed the original vaccination for damages covering the value of the cow.

COUNTY MEDICAL SOCIETY ENDORSES GROUP HOSPITALIZATION

"Group hospitalization will not only ease the burden of sickness expense from the patient of low to moderate income, but will preserve at the same time that all important patient-family physician relationship," said Dr. J. L. Zimmerman, president of the Dauphin County (Penn.) Medical Society in announcing the Society's unanimous approval of the plan.

"I like group hospitalization because it is voluntary in contrast with some forms of compulsory health insurance. It has been in operation in Rochester, N. Y., a city of over 320,000 population, only two years, and yet 20 per cent of the people are enrolled as beneficiaries of the plan."—The Bulletin of the Hospital Association of Pennsylvania.

CANCER—CONTROL COOPERATION

The Haverhill (Massachusetts) Rotary Club, as one of its community service projects, is extending cooperation to the Division of Adult Hygiene of the State Department of Public Health in the cancer control program of that department. The Haverhill Club arranged, starting last December, for 12 programs with the various clubs and societies of the city.

The programs were each in the nature of a discussion, with a doctor speaking for a 20-minute period, after which the meeting was turned into an open forum and the audience was privileged to ask questions. According to reports, the question period in most cases proved to be the most interesting part of the meeting.—The News Letter.

U. S. CANCER WAR

"Action of congress in appropriating $400,000 to finance a government-directed attack on cancer writes a new page in the book of federal service, for it is the first time any official medical agency has attempted a campaign to find the cause and cure of a modern disease.

"Heretofore private funds have financed medical battles against such diseases as tuberculosis, diphtheria and the fevers. Individual fortunes have been spent, with the money sometimes running low at critical times.

"The original sum appropriated will only be a starter. The cancer research bill provides that $750,000 be spent annually until the doctors of the National Institute of Public Health either conquer the disease or admit defeat. The fight is expected to be slow.

"When the upper house heard statistics quoted to the effect that 140,000 persons in the United States die annually from the disease and that it attacks one person in every eight after the age of 45, every senator signed as co-sponsor of a measure that was richly worth passing."—Vicksburg Evening Post.

WHAT EVERY MEDICAL SOCIETY NEEDS

A society publication or letter of some kind, even though a humble typed sheet, delivered to every member every month.

A society history, with all records coming up to now from the society's first organization.

Fellowship for every meeting.

A full set of committees, carefully selected and constantly interested.

A planned program, intelligently prepared and carefully followed.

A society survey of all eligible possible members, accurate and live.

CONSERVATION

The first duty of a man is to speak, that is his chief business in this world; and talk, which is the harmonious speech of two or more, is by far the most accessible of pleasures. It costs nothing; it is all profit; it completes our education; it founds and fosters our friendships; and it is by talk alone that we learn our period and ourselves.—Stevenson.

FROM JOSH BILLINGS

"The man who kan wear a shirt a hole weak and keap it klean, aint fit for enny thing else."

"When a man's dog deserts him on akount ov his poverty, he kant git enny lower down in this world."

"Luv is like the measels, we kant alwas tell when we ketched it, and ain't apt tew hav it severe but onst."

FOLLOW-UP REPLY

Do you consider yourself cured of the trouble that brought you to the hospital? Answer: "Yes."

If not cured, do you consider yourself improved? Answer: "Little bit."

Do you suffer from any of the same symptoms as when here? Answer: "Yes, I suffer at times."

Have you gained weight? Answer: "Yes." Lost Weight? Answer: "Yes." How much? Answer: "5 lb. Pounds 113."

Do you suffer from abdominal pain? Answer: "Yes, I suffer with pain."

If so, where is pain located? Answer: "My heart, stomach, back."

Other pains? Answer: "Piles Pains." Where located? Answer: "In my recter."

Do you still menstruate? Answer: "No." Is it at regular intervals? Answer: "Haven't seen anything."

Is there any pain associated with menstruation? Answer: "At times I have pain."

Do you have leukorrhea or vaginal discharge? Answer: "Yes." If so, what is its color? Answer: "Yellow looking." How much? Answer: "Greateal of it."

Is there any pain or pulling sensation in region of incision scar? Answer: "No."

Are you constipated? Answer: "Yes."

STATE BOARD OF HEALTH

A postgraduate course in the treatment of venereal diseases has been inaugurated for Mississippi physicians by the State Board of Health, the State Medical Association, and Tulane University. Starting in Clarksdale and Houston, a week's instruction will be given in numerous towns to which physicians from neighboring counties will be invited. The lectures will be given in every section of the state, and the entire series will require a year or more.

Dr. Van Studdiford, assistant professor of dermatology, and Dr. de Laureal, assistant in medicine, at Tulane School of Medicine, will divide the week's teaching, according to the plan offered by Dr. Maxwell E. Lapham, director of extension, Tulane School of Medicine.

On August 11, Dr. Felix J. Underwood spoke at Neshoba County Fair on "News Trends in Public Health." From August 12-14, the health executive attended in Washington, D. C., a special conference with officials of the Children's Bureau regarding the coming year's program.

On August 19, 20, and 27, Dr. Underwood addressed the Kiwanis Club, Hattiesburg, and the Rotary Clubs of Leland and Starkville, respectfully, on "The Venereal Diseases." Showing that these ailments are disease gangsters of the worst type, the health officer appealed for intelligent support in a campaign against them. He urged case-finding isolation for syphilis and gonorrhea comparable to the use of those tried and true measures against tuberculosis, smallpox, and other scourges.

Mrs. Eva Moore Adams, until August 15, supervisor of health education, boarded the S. S. Empress of Japan at Vancouver, September 4, for Manilla, P. I. On her arrival there, Mrs. Adams will be married to Dr. C. T. Cross, dentist and planter.

Mississippi's first supervisor of organized health education, Mrs. Adams, joined the board of health staff with varied background of editorial, health, and educational work. She came here more than a year ago from the Philippines where she was editor for the Bureau of Health.

Initiated in Mississippi by Mrs. Adams was a fine program of popular health instruction including news releases, a weekly radio broadcast, health talks to clubs and other groups, and the preparation and distribution of health literature.

Highly regarded for her exceptional ability, her tact, and her broad interests, Mrs. Adams will be greatly missed at the board of health. Sincere good wishes for much happiness go to her from many friends in Mississippi.

Dr. C. C. Applewhite, formerly with the State Board of Health as director of the division of county health work, was a visitor to the central office recently. Dr. Applewhite is now regional consultant for the United States Public Health Service.

Four medical trainers of the U. S. Public Health Service studied Mississippi's malaria control work during August. They were: Drs. Andru J. Perolio, Alabama State Health Department, Montgomery; W. H. Aufranc, Missouri State Board of Health, Jefferson City; Charles M. McGill, U. S. Public Health Service, and Henry R. Carter Memorial Laboratory, Savannah, Georgia; and D. W. Fulmer, Arkansas State Board of Health, Little Rock.

Dr. George E. Riley, state director of malaria control, arranged for their stay in Hinds County and Delta districts. Taking a four months' study course and tour in malaria control the group went to TVA's Wilson Dam after leaving Mississippi.

Miss Marion Mead, clerical worker for the Forrest County Health Department, was in the central office for one week during August familiarizing herself with health work routine from a state angle.

Eight tsetse flies, "good and dead and that's the only good kind," recently came to Dr. Underwood's office, far from their African home and deadly assaults there. They were sent to the state health officer by Dr. W. A. Evans, of Aberdeen, medical writer, who is touring Africa and studying tropical diseases.

Two of them bit Dr. Evans, he writes, but he slapped at them before they drew blood. A good bite from one of these flies will give a white man a form of encephalitis, a "sleeping to death."

The flies are slightly larger than a house fly, with longer, grey wings, and are banded like a bee.

Dr. Evans, who mailed the flies from Lobito Bay, Portuguese Angola, Africa, went there from the Belgian Congo. He will return to the Congo, then go to northern Rhodesia before taking a lesiurely journey for Capetown, where he embarks for home.

The results of his findings on disease and insects in Africa will be told before the Mississippi Public Health Association meeting in December.

Regulations covering impounded waters have been recently passed and promulgated by the State Board of Health. Similar to those of Alabama, Georgia, Tennessee, and North Carolina, these laws make necessary a permit and provide for the preparation of the basin to be impounded. Such regulations will prevent the enormous increase of anopheline breeding usual to newly impounded waters, thus decreasing the incidence of malaria.

Because of its outstanding merit, a copy of Dr. Henry E. Meleny's presidential address to the American Society of Tropical Medicine has been mailed to every physician in the state by the division of malaria control.

Mr. H. V. Stewart, director of the Arkansas State Board of Health Laboratory, Little Rock, spent a week observing the work of Mississippi's Hygienic Laboratory.

Starting the middle of September, John B. Grant, Pike County, Lorenz McCaleb, Coahoma County, and C. T. Roberts, Madison County, will take a three months' course for sanitarians at the Vanderbilt University School of Engineering. Mr. J. A. Willman, Lauderdale County, and Mr. H. L. Vaughan, Central office, will go the latter part of September to Harvard University where they will do nine months' postgraduate work in sanitary engineering.

The greater knowledge to be derived from these courses will make more effective the part of these workers in the public health program.

WJDX health talks for August were as follows: Aug. 7, "The Child Health Balance Sheet," Dr. Felix J. Underwood; Aug. 14, "Community Aids in Extending Public Health Services," Dr. John W. Shackelford, director of Washington County Health Department, Greenville; Aug. 21, "That the Lame May Walk," Mrs. J. F. McDougal, supervisor of Crippled Children's Service, Jackson; Aug. 28, "Teaching Health in the Public Schools,"

J. M. Bryant, assistant supervisor of education, Jackson.

Jackson, Felix J. Underwood,
Sept. 4, 1937. Executive Officer.

DIRECTORY AND CALENDARS OF MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-first Annual Session and Thirty-fifth Annual Session of the House of Delegates, Jackson, April 19, 20, 21.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p. m.

Amite County Medical Society: W. S. Stewart, Osyka, president; D. H. Thornhill, Crosby, secretary. Meets second Thursday, each month, with Wilkinson County Medical Society, Field Memorial Hospital, Centreville.

Central Medical Society: L. W. Long, Jackson, president; A. Gayden Ward, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m., except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six counties Medical Society: J. E. Powell, Charleston, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clarke-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president, Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: I. W. Barrett, Clarksdale, president; N. C. Knight, Clarksdale, secretary. Meets second Wednesday, each month, Clarksdale Hospital, Clarksdale, 1:30 p. m.

Coast Counties Medical Society: R. G. Lander, Pascagoula.

Delta Medical Society: E. T. White, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

DeSoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, secretary. Meets first Monday of January, April, July, October, Hernando, 10 a. m.

East Mississippi Medical Society: T. G. Cleveland, Meridian, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: L. Costley, Meadville, secretary.

George County Medical Society: R. F. Ratliff, Lucedale, president; J. L. Spiceland, Lucedale, secretary.

Hancock County Medical Society: D. H. Ward, Bay St. Louis, president; A. P. Smith, Bay St. Louis, secretary.

Harrison County Medical Society: E. B. VanNess, Gulfport, president; D. L. Hollis, Biloxi, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: G. C. Jarratt,, Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday, each month, Mississippi State Charity Hospital, Vicksburg, 7 p. m.

Jackson County Medical Society: F. O. Schmidt, Ocean Springs, president; R. G. Lander, Pascagoula, secretary. Meets second Thursday of March, June, September, Pascagoula, 7 p. m.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Marshall County Medical Society: C. R. Senter, Byhalia, president; Herbert Phillips, Holly Springs, secretary. Meets second Thursday, each month, alternating between Byhalia and Holly Springs.

Newton County Medical Society: W. T. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: G. H. Wood, Batesville, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: L. L. McDougal, Booneville, president;A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September and December.

Pike County Medical Society: J. L. Bauer, McComb, president; Elise Rutledge, McComb, secretary. Meets first Thursday, each month, McComb 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R.F.D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Stone County Medical Society: Earl W. Green, Wiggins, secretary. Meets with Harrison-Stone-Hancock Counties Medical Society.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday each month, Senatobia.

Tri-County Medical Society: D. T. Langston, New Hebron, president; R. B. Zeller, Hazlehurst, secretary. Meets March, Copiah-Lincoln Junior College, Wesson; June, Walthal Hotel, Tylertown; September, Riverside Hotel, Monticello; December 14, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president; H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: E. M. Butler, Centreville, secretary. Meets with Amite County Medical Society, Centreville.

Winona District Medical Society: P. B. Brumby, Lexington, secretary.

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION: Ninth Annual Session, Jackson, April 18, 1938.

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary: First Monday, each month, 6:00 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital: Third Wednesday, each month, 7:30 p. m.

Charleston Hospital: First Thursday, each month, 7:00 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12:00 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p. m.

George C. Hixon Memorial Hospital: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium: Third Thursday, each month, 8:00 p. m.

Greenwood Leflore Hospital: First Thursday, each month, 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital: Second Thursday, each month, 7:00 p. m.

Houston Hospital: Fourth Friday, each month, 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p. m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p.m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 7:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.

Magee General Hospital: Twenty-fifth each month, 6:00 p. m.

Mayes Hospital: First Monday, each month, 2:30 p. m.

McComb City Hospital: First Tuesday, each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday, each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Infirmary: Second Thursday, each month.

Northeast Mississippi: First Monday, each month, 7:00 p. m.

Oktibbeha Hospital: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veterans' Hospital, Gulfport: Every Monday, Tuesday, Wednesday and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month, 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

GULF COAST CLINICAL SOCIETY

The second annual meeting of the Gulf Coast Clinical Society will be held in Biloxi, Wednesday, and Thursday, Nov. 3-4, 1937.

A widely diversified two-day scientific program will be participated in by:

Dr. M. Ed Davis, Associate Professor of Obstetrics and Gynecology, University of Chicago.

Dr. C. H. Heacock, Radiologist, Memphis, Tenn.

Dr. Lucien E. Burch, Professor of Clinical Obstetrics and Gynecology, Vandervilt University.

Dr. William C. Chaney, Associate Professor of Medicine, University of Tennessee.

Dr. Ray M. Balyeat, Associate Professor of Medicine, University of Oklahoma.

Col. C. F. Craig, Professor of Tropical Medicine, Tulane University of Louisiana.

Dr. Alton Ochsner, Professor of Surgery, Tulane University of Louisiana.

Dr. H. Casparis, Professor of Pediatrics, Vanderbilt University.

Dr. J. C. Love, Department of Neuro-Surgery, Mayo Clinic.

Dr. Karl Meyer, Associate Professor of Surgery, Northwestern University.

Dr. Curtice Rosser, Professor of Proctology, Baylor University.

Dr. Ed Jelks, President, Florida Medical Association.

Dr. E. S. Sledge, President, Alabama Medical Association.

Dr. Joseph E. Green, President-Elect, Mississippi State Medical Association.

A special feature of Wednesday will include a clinic on "Borderline Mental Cases" to be held at the U. S. Veterans' Hospital at Gulfport.

For relaxation and good fellowship, there will be a fish fry and supper at Ship Island, Wednesday night. Thursday night, Dr. Morris Fishbein, editor of the Journal of the American Medical Association, will be the guest speaker at a banquet sponsored by the Harrison-Hancock-Stone-Jackson Counties Medical Society. All members and their wives are cordially invited to attend both affairs

For the further pleasure of the wives attending, the Gulfport Women's Auxiliary will entertain on Wednesday, and the Biloxi Unit will have a bridge-tea on Thursday.

Headquarters for the meeting will be the Buena Vista Hotel at Biloxi where all the meetings will take place. Be sure to make your reservations early.

Pensacola, Fla. M. A. Lischkoff,
Sept. 4, 1937. Secretary-Treasurer.

HOMOCHITTO VALLEY MEDICAL SOCIETY

The Field Memorial Hospital held its annual meeting for the Homochitto Valley Medical Society, which includes Amite and Wilkinson Counties Medical Societies on the evening of the second Thursday in July.

Good fellowship and an excellent banquet were enjoyed by all; after which a most instructive program was rendered. The guest speakers were Dr. Alton Ochsner, professor of surgery, Tulane University, and Dr. Maxwell E. Lapham, who formerly conducted a course in obstetrics in the field of postgraduate medical education in the State of Mississippi. Dr. Ochsner lectured on peripheral vascular disease—recognition and treatment. Dr. Lapham lectured on maternal mortality—incidence and prevention in rural practice.

Crosby, D. H. Thornhill, M.D.
Sept. 3, 1937. Secretary,
Amite County Medical Society.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, September 14 and after a supper served at 7 p. m., was called to order by the president, Dr. G. C. Jarratt, with twenty members and seven guests present.

Papers and discussions—Urology, Dr. J. A. K. Birchett, Jr., Vicksburg, chairman.

1. Some Remarks on Internal Urinary Antiseptics—Dr. A. Street, Vicksburg.

Discussed by Drs. S. W. Johnston, B. B. Martin, Jr., N. B. Lewis, W. P. Robert, and J. A. K. Birchett, Jr. Dr. Street closed.

2. Renal Neoplasms—Dr. J. A. K. Birchett, Jr., Vicksburg.

Discussed by Drs. A. Street, W. E. Johnston, G. C. Jarratt. Dr. Birchett closed.

3. Case report—Meckel's Diverticulum—Dr. N. B. Lewis.

Dr. E. H. Jones, director, reported for the clinic conducted by this society for the month of August. The report showed 1286 patient visits, with a daily average of 21. Patients were received from 22 counties of the state and from four other states. The greatest number of visits were for venereal disease, the number being 368 for the month.

The next meeting of the Society will be held at the Mississippi State Charity Hospital Tuesday, October 12. The subject will be surgery and the committee in charge consists of Drs. W. H. Parsons, Vicksburg, B. B. Martin, Vicksburg, N. B. Lewis, Vicksburg, S. W. Johnston, Vicksburg, and D. P. Street, Vicksburg.

DESOTO COUNTY

In my notes for August, I neglected to mention the two medical gatherings, first, the series of lectures and clinics on pediatrics by Dr. Robert A. Strong, of New Orleans, at Senatobia; second, the meeting of the North Mississippi Medical Society. Both of these events were worth while. The next meeting of this society will be at the University, the medical faculty providing the program. Dr. G. H. Wood, Batesville, and Dr. A. H. Little, Oxford, are president and secretary respectively of this worthy organization. Needless to say that the affairs are in the best of hands.

Dr. C. W. Emerson, Hernando, is with a party, deep-sea fishing on the Gulf; Mrs. Emerson and children are with her father's family in West Point. Her father, Dr. Lon P. Dotson is a member of the fishing party.

In the last month's issue of *The Mississippi Doctor,* we missed the column of Dr. H. T. Ims, of Warren County. His axiomatic notes are characteristic and interesting. We trust he will continue to carry on his work.

The program of the Central Medical Society presented by the Faculty of the Medical Department of the University of Tennessee at the Robert E. Lee Hotel, Jackson, could not well be excelled. The names of the essayists insure this fully.

Mr. H. K. Moore, county sanitation supervisor, has resigned to accept a similar position with the Coahoma County Health Unit. The gentleman seems to understand his work thoroughly.

Dr. and Mrs. Wm. Kountz and their two children returned to their home in St. Louis after a visit to Hernando relatives. Mrs. Kountz was Miss Willie Weissinger, daughter of Mrs. Cora W. and the late Dr. Alex J. Weissinger. Dr. Kountz is a member of the faculty of a large medical scool.

The first institute for the care of sick children was established in the year of 1769 by George Armstrong (died 1781) in London under the name, "Dispensary for the Relief of the Infant Poor."

Physicians are finding that new type of patients who want help "to maintain a high standard of efficiency and to avoid disabling complications."

We read with sorrow recently in a daily paper of the unfortunate death from an automobile accident of J. Sidney Eason, Jr., son of Dr. Eason, of Coldwater. Our sympathy goes out to the good doctor in his bereavement.

Memphis, Tenn. L. L. Minor,
Sept. 10, 1937. County Editor.

HUMPHREYS COUNTY

Mrs. T. A. Graves and Mrs. Herbert Wilson, Red Lick, have been visiting Dr. and Mrs. G. M. Barnes. They are Mrs. Barnes' sisters.

Mr. and Mrs. Russell Crider and daughter, Lansing, Michigan, Mr. Fate Crider and daughter, Milan, Tennessee, and Mrs. Lon Crider, Bradford, Tennessee, were week-end guests of Dr. and Mrs. J. W. Jackson.

Recent visitors to Winona were Dr. and Mrs. W. S. Taylor, Isola.

Mrs. J. N. Mecklin, Louise, is in Memphis with her sister, Miss Hettie Smith.

Mrs. Gene Lewis and Mrs. J. W. Jackson attended a family reunion in Bradford, Tennessee, the week of the 6th. Thirty members of the family were present.

Mrs. Milton Branton, Dayton, Texas, has returned to her home after a delightful visit with her parents, Dr. and Mrs. G. S. Bryan, Silver City.

Mrs. Ben Jackson has returned to her home in Memphis after a lengthy visit here with her son, Dr. J. W. Jackson.

Belzoni, J. W. Jackson,
Aug. 7, 1937. County Editor.

HUMPHREYS COUNTY

Mr. and Mrs. G. W. Barkley, Cotton Plant, have been visiting their sons and families, Dr. T. J. Barkley, Isola, and Dr. J. W. Barkley, Belzoni.

Spencer, oldest son of Dr. and Mrs. G. M. Barnes, has returned to Oxford to enter the University of Mississippi. He is following in his dad's footsteps in preparing himself for the practice of medicine.

Dr. and Mrs. Robert Jackson attended the Barnum and Bailey Circus in Memphis recently.

Dr. and Mrs. J. A. Waddlington are happy to have their daughter, Irene, home with them again. She has been in New York for the past several months studying art.

The many friends of Dr. J. D. Westmoreland will regret to learn of the recent passing of his wife. Sympathy is extended to him and his children in this sad hour.

Mrs. J. C. Higdon has returned after an extended visit with her sister in Nashville, Tenn.

Belzoni, J. W. Jackson,
Sept. 11, 1937. County Editor.

LEAKE COUNTY

Not much has happened among the doctors of Leake County since last we wrote. Our society doesn't function much. As a matter of fact it has not met for several months.

The epidemic of "polio" seems to have passed on; no recent cases reported. The total was 22 cases before it did subside, however with one death. The new set up the board has at the old asylum at Jackson has done some splendid work and got good results for the "polio" victims we have sent down for treatment.

Dr. W. S. Martin, our county health officer, is out again after several weeks, ailing from a gallbladder operation. Dr. Wilson, who had a double herniotomy, is back on the job and able to pull tonsils.

Dr. Joe M. Chisolm, formerly of Tennessee, after serving as relief man for Dr. Wilson while he was under operation, has decided to locate permanently with us, making a total of seven doctors in our town. All seem to be doing pretty well.

There seems to be more malaria this year than there has been for several years. We find the schedule for treating malaria put out by the Board of Health recently is working good. We find the bulletins coming out at regular intervals from the health department worth a great deal. They are instructive and timely. The big trouble is the doctor doesn't take time to read and study them, which they should do by all means. There are too many changes, improvements, and new methods coming up for a doctor now to depend on old text books written a decade or more ago. The country doctor particularly by all means should take time to read these bulletins, his medical journal *(especially The Mississippi Doctor)* and even some reports from the pharmaceutical and chemical houses. One will be surprised how much valuable information he can pick up by a little careful and select reading.

We are looking forward to the big day in Jackson, September 7, when the University of Tennessee faculty entertains the Central Medical Society at Jackson.

Carthage, H. H. Puryear,
Aug. 17, 1937. County Editor.

LEFLORE COUNTY

There were twelve present at the regular staff meeting of the Greenwood Leflore Hospital, Thursday night, Aug. 5. Dr. J. F. Lucas reported a case of pyonephrosis in an old lady with operation and recovery.

Dr. C. E. Walker and family, Sanatorium, visited in the home of Mr. and Mrs. Littleton Upshur, Aug. 6.

Dr. Charles Jones, Kosciusko, visited Dr. F. M. Sandifer, Jr., Aug. 8.

Dr. and Mrs. Herbert J. Smith and daughter, St. Louis, Mo., visited Mrs. Smith's sister, Mrs. C. A. Maxwell, Aug. 14 and 15.

Dr. and Mrs. L. F. Ferguson, Greenwood, attended the wedding of their nephew, Rev. Edward Hewlett to Miss Mildred Robertson, Owensboro, Ky., Aug 16.

Dr. and Mrs. F. M. Sandifer spent a week on the Florida coast, Aug. 19-27.

Dr. Russell A. Hennessey, Memphis, Tenn., was a recent visitor to Greenwood, Aug. 21.

Dr. Neuton S. Stern, Memphis, Tenn., was also a recent visitor to Greenwood.

Dr. R. E. Wilson and family spent the weekend of Aug. 21-24 in Guntown.

Dr. J. C. Pegues and family spent their vacation over at Atlanta, Ga.

Dr. J. R. Hightower, Itta Bena, has gone to Little Rock, Ark., for a year as house surgeon of the Missouri Pacific Hospital.

Mrs. Pope McCorkle and sons, Pope and Bill, returned to Memphis, Tenn., Aug. 31, after spending ten days in the home of Dr. and Mrs. W. B. Dickins.

Dr. G. Y. Gillespie, Jr., spent his vacation fishing on the Florida cost.

Greenwood W. B. Dickins,
Sept. 2, 1937. County Editor.

WILKINSON COUNTY

Possible the Wilkinson County editor is at present a little biased in his conception regarding news items; for at the time of this writing, he still has only one item to contribute.

On May 5, the marriage of Miss Redolia Davis to Dr. Edwin M. Butler was solemnized in the chapel of the First Presbyterian Church of Atlanta, Ga. Following a short bridal trip through the southeast, Dr. and Mrs. Butler returned to Centreville, where Dr. Butler has been engaged in practice for the past three years.

Centreville, Edwin M. Butler,
Sept. 4, 1937. Editor.

WINSTON COUNTY

Dr. J. S. Hickman, Meridian, and Dr. W. W. Hickman and Dr. T. F. Kilpatrick, Noxapater, attended the Rodgers family reunion at the American Legion State Park Aug. 29.

Mrs. Walter Owen and little daughter, Rosemary, New Albany, are here on a visit to their parents, Dr. and Mrs. W. W. Parkes.

Dr. W. W. Hickman was in Louisville on business this week.

The writer is looking forward to the completion of his clinic now under construction.

Drs. L. T. Parkes and L. C. Kirk, Masshulaville, was in Louisville this week.

Louisville, M. L. Montgomery,
Sept. 10, 1937. County Editor.

Hospital Staff Transactions

HOUSTON HOSPITAL STAFF MEETING

The regular monthly staff meeting of the

Houston Hospital was held at 7:45 o'clock, Friday night, August 27 in the lobby of the hospital.

Misses Alda Marie Turner and Mabel Wessels, of Houlka, rendered a delightful program of popular songs during the supper hour. They were accompanied by Mrs. Clyde Stewart, also of Houlka.

The guest speaker of the evening was Dr. Casa Collier, of Memphis. The subject of his paper was "Acute Intestinal Obstructions" and was enjoyed by all present. A general discussion followed the paper in which a number of the doctors took part.

Other out-of-town guests for the evening were Dr. Harley Harris, of Memphis, and Dr. Underwood and Mr. Gatlin, of the State Board of Health, Jackson.

Following the scientific program a group of moving pictures taken by Dr. Collier on his travels through the United States and Mexico were shown.

The following doctors were present: Dr. Casa Collier, Dr. Harley Harris, Memphis; Dr. Underwood, Mr. Gatlin, Jackson; Dr. W. C. Walker, Dr. J. M. Hood, Dr. C. W. Patterson, Houlka; Dr. H. D. Curry, Dr. W. H. Curry, Eupora; Dr. B. J. Shaw, Slate Springs; Dr. J. A. Hardin, Derma; Dr. E. F. Arnold, Bellefontaine; Dr. H. F. Crumby, Hohenlinden; Dr. E. L. Richardson, Louisville; Dr. W. J. Aycock, Calhoun City; Dr. T. D. Houston, Montpelier; Dr. E. K. Guinn, McCondy; Dr. E. B. Young, Vardaman; Dr. C. A. Watkins, West Point; Dr. J. R. Williams, Dr. W. H. Ivey, Dr. G. G. Armstrong, Dr. O. B. Crocker, Dr. S. K. Gore and Dr. V. B. Philpot, Houston.

Houston,

Aug. 30, 1937.

MCCOMB CITY HOSPITAL STAFF MEETING

The staff of the McComb City Hospital met August 10, 6 p. m., at the Summit Tea Room as dinner guests of Mrs. L. D. Dickerson. Practically all the members were present.

Dr. T. Paul Haney, Jr., gave an interesting lecture on "Poliomyelitis." Dr. W. F. Cotten reported two cases of foreign bodies in the eye.

McComb, Thos. Purser, President,
Aug. 21, 1937. Gladys Ratcliff, Secretary.

VICKSBUG SANITARIUM

A regular monthly meeting of the Vicksburg Sanitarium was held Friday, Sept. 10, and after a supper served at 6:30 p. m., was called to order by the president, Dr. George M. Street, with thirteen members and two guests present. The program included:

Reports from the Records Department and Analysis of the Work of the Hospital.

Report of Vital Statistics.—Dr. F. Michael Smith, Director, Warren County Health Department.

Special Case Reports:

1. Fracture of Patella; Fracture of Olecranon Process of Ulna.—Dr. A. Street.

Discussed by Dr. T. H. Blake, Jackson.

2. Aplastic Anemia.—Dr. L. J. Clark.

Discussed by Dr. L. S. Lippincott.

3. Premature Separation of Placenta; Live Baby.—Dr. R. A. Street, Jr.

Discussed by Drs. George M. Street and J. A. K. Birchett, Jr.

Demonstration of selected radiographic studies: Fracture of Humerus; Subdeltoid Bursitis; Calcified Pleura; Diaphragmatic Hernia; Nephrolithiasis; Renal Tuberculosis.

Three Minute Reports of The Literature of the Month:

Dr. L. S. Lippincott—Multiple Infections from Smallpox Vaccination.

2. Dr. J. A. K. Birchett, Jr. — Osgood-Schlatter's Disease.

3. Dr. R. A. Street, Jr.—Carcinoma of Cervix During Pregnancy.

The next meeting of the staff will be held Monday, October 11, 1937.

ABSTRACT.—APLASTIC ANEMIA

L. J. Clark, M. D.

Patient.—White, male, age 71. Admitted to Sanitarium July 1, 1937.

Chief Complaint.—Sore right knee, general weakness, loss of weight.

History of Present Complaint.—Stated he had been in bad health for some time, but for the past three or four months had noticed that he was much weaker and in course of time had had a slight injury to right knee of no apparent significance but which continued paining him and giving a great deal of trouble in spite of treatment by local physician. Has poor appetite; has noted swelling of ankles and puffing of eyes and abdomen. Constantly disturbed with stubborn colds for past few years; no fever noted; no rigors or sweats; has lost 10 to 15 pounds in weight.

Past History.—No serious illnesses other than usual minor illnesses of childhood and later days.

Family History.—Irrelevent.

Physical Examination.—Temperature 99 degrees F.; blood pressure 120/80; pulse regular, 80; respiration regular, 18; fairly well developed and nourished senile, white male apparently not acutely ill. Very pasty skin. Slightly icteric sclerae and skin; neck negative; tongue slightly glossy and smooth; no teeth; tonsils not remarkable; thorax, heart and lungs negative; no masses or areas of tenderness in abdomen; no costovertebral tenderness. Slight edema of ankles (not typical pitting); generalized petechiae of body, especially on legs. There is a large swollen brownish area below right knee, slight tenderness and slight evidence of skin abrasion over surface, not fluctuant; in general resembles a hematoma. Prostate negative.

Clinical Laboratory.—Wassermann, Kline and Young, and Kahn test, negative. Urine negative; blood: hb. 87 per cent, erythrocytes 2,240,000, color index 1.9, reticulocytes 0.5 per cent, leukocytes 5,000, differential leukocyte count not remarkable. Undulant fever, negative. Blood urea nitrogen 17.28 mg per 100 c.c.; dextrose 91 mg. Feces: no blood or parasites found.

Procedure.—While in hospital usual local treatment was instituted with therapy towards the anemia which had characteristics of pernicious anemia. The question of secondary anemia was not ruled out, cancer with metastases including melanotic sarcoma was to be considered. X-ray of injured leg with normal leg for comparison showed no evidence of bone changes. He was discharged four days later with instructions for treatment of an anemia simulating pernicious anemia. He returned 15 days later after taking very intensive liver extract therapy and usual anti-anemic treatment.

On admission hb. was 57 per cent or 5.58 gms. per 100 c.c.; erythrocyte count 2,390,000, color index, .71. Urine normal. Fluoroscopic examination of stomach showed slightly elevated right diaphragm, stomach medium fishhook type, motility good; duodenal cap large, regular and empties well. Fractional gastric analysis showed normal total acid curve with absent HCl for first 45 minutes and then only 10 for 45 minutes; very few fresh red blood cells; chemical blood (2-plus).

He was given a transfusion of 400 c.c. of citrated blood without reaction. He received temporary relief and returned home three days after admission for further treatment. At this time the blood picture was not thought to be that of pernicious anemia and there was no demonstrable evidence of malignancy, no history of poisoning or anything that pointed to the cause of anemia.

He returned 10 days later very much worse. Hb. 52 per cent; red blood count 1,650,000; color index 1.63; leukocytes 3,800, small lymphocytes 71 per cent, large lymphocytes 13 per cent, neutrophilis 16; urine normal. X-ray studies of knee, pelvis and lateral mediastinum were made for malignancy with metastases; none were found. The next day hb. 27 per cent; red blood count 1,370,000; color index 1.04; some morphological changes; white blood count 2,700, small lymphocytes 76 per cent, large lymphocytes 14 per cent, neutrophils 10. He was given a transfusion of 300 c.c. of citrated blood with a severe reaction following, and did not apparently get any improvement. Subsequent blood examinations showed gradual decrease of red blood cells, high lymphocyte count and more morphological changes. Blood fragility test showed hemolysis starting at 0.35 per cent and complete at 0.28 per cent. Blood urea nitrogen 35.96 mg. per 100 cc. Blood was expectorated at intervals but no ulcerations of mouth were noted. Condition of patient became rapidly worse with a broncho-pneumonia death eleven days after the third admission to hospital. Postmortem was refused.

Comment:—The blood picture and other findings in this case were not positive and there is still doubt as to a diagnosis. There should have been a sternal puncture for bone marrow examinations.

The conditions other than aplastic anemia to be considered in this case from a diagnostic standpoint are hemolytic jaundice (there was no enlarged spleen, fragility test was about regular); pernicious anemia (the final blood picture was not that of pernicious anemia and there was no reticulocyte response following liver therapy); secondary anemia (there was no evidence of any condition proven responsible for a secondary anemia nor was there at any time evidence of an infection); benzol or other chemical poisoning (the past history failed to bring out any evidence of poisoning).

Primary aplastic anemia seems to be the most likely anemia here in the absence of poikilocytosis and nucleated red blood cells with the associated leukopenia.

HONOR ROLL

The following have contributed to the Mississippi State Medical Association section of our Journal this month:

County Editors: DeSoto, L. L. Minor; Humphreys, J. W. Jackson; Leake, H. H. Puryear; Leflore, W. B. Dickins; Wilkinson, Edwin M.

Butler; Winston, M. L. Montgomery.—6.

Societies: Gulf Coast Clinical Society, M. A. Lischkoff; Homochitto Valley, D. H. Thornhill; Issaquena-Sharkey-Warren Counties.—3.

Hospitals: Houston Hospital; McComb City Hospital, Mrs. W. D. Dickerson; Vicksburg Sanitarium.—3.

Others: Felix J. Underwood.

Total—13.

Your editors thank you.

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASSOCIATION

President	Mrs. C. C. Hightower	Hattiesburg
President-Elect	Mrs. John Howell	Canton
First Vice President	Mrs. D. J. Williams	Gulfport
Second Vice President	Mrs. J. P. Wall	Jackson
Third Vice President	Mrs. Henry E. Frizell	Vaughn
Fourth Vice President	Mrs. V. B. Philpot	Houston
Recording Secretary	Mrs. H. C. Ricks	Jackson
Treasurer	Mrs. J. D. Simmons	Cleveland
Historian	Mrs. Harvey F. Garrison	Jackson
Parliamentarian	Mrs. Adna G. Wilde	Jackson

Councillors: Mrs. T. G. Hughes, Clarksdale, first district; Mrs. C. M. Roberts, New Albany, second district; Mrs. W. H. Cleveland, Tupelo, third district; Mrs. E. C. O'Cain, Winona, fourth district; Mrs. Hugh Johnston, Vicksburg, fifth district; Mrs. H. Lowry Rush, Meridian, sixth district; Mrs. J. P. Culpepper, Hattiesburg, seventh district; Mrs. W. K. Stowers, Natchez, eighth district; Mrs. Archibald C. Hewes, Gulfport, ninth district.

NORTH MISSISSIPPI MEDICAL SOCIETY

Dr. and Mrs. H. N. Mayes, of New Albany, are spending several weeks in New Orleans.

Dr. and Mrs. R. E. Shands, and little daughter, Anna Katherine, formerly of Sherman, have recently moved to New Albany. Dr. Shands is a member of the Mayes Hospital Staff.

While in Memphis to attend the Mid-South Fair, Dorothy and Curtis Roberts, of New Albany, visited Bry's Saturday morning and appeared on the Juvenille radio program. The talented young musicians played a piano duet, title "Cheerfulness." Their number was well received by those in the audience and friends listening in.

Carolyn Speck, daughter of Dr. and Mrs. C. M. Speck, of New Albany, was hostess to the Junior MacDowell Music Club Friday afternoon, September 3rd. Eight new members were given a most cordial welcome into the club. A most interesting program had been planned by Emma Rogers, chairman of the program committee and was enjoyed by all. A delicious ice course was served by the hostess, assisted by her Mother.

Dr. S. H. Liddell, of Myrtle and of Mayes Hospital Staff, New Albany, is spending the month of October with his sister, Mrs. R. V. Stevenson, Hot Springs, Ark.

CENTRAL MEDICAL AUXILIARY

The Ladies Auxiliary to the Central Medical Association will discuss the project for the coming year Tuesday afternoon, October 5, at the Nurses' Home at Charity Hospital. Mrs. T. E. Wilson will act as hostess. Mrs. Fred T. Hollowell, president of the auxiliary urges all members to be present as plans for aiding Charity hospital will be discussed.

Dr. and Mrs. John Darrington, Yazoo City, spent several days in New Orleans recently.

Dr. and Mrs. B. C. Rush, and children, Susie, Clarine and Benjamine, Vaughan, have returned from a very pleasant vacation at the Hotel Markham, Gulfport.

The friends of Dr. and Mrs. Gilruth Darrington, Yazoo City, are glad to know their lovely little daughter, Prudence, is improving after being quite ill for several days from acute tonsilitis and laryngitis.

Dr. and Mrs. W. E. Noblin, Jackson, spent the week-end in Yazoo City with friends recently.

Dr. and Mrs. H. E. Frizell, Vaughan, attended the meeting of the Central Medical Association and the Woman's auxiliary in Association and the Woman's auxiliary in Jackson, October 5.

COURTESY CARDS

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tennessee

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 6-3288
899 Madison Ave. Memphis, Tenn.

JOHN W. RAGSDALE, M.D.
CHESTER D. ALLEN, M.D.
327 Medical Arts Bldg.
Memphis, Tenn.
Urology and Urological Surgery

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as Applied in This Field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Phones: Off: 6-1923 —:— Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Mississippi

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Mississippi

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WILLIAM MILTON ADAMS, M.D.
Practiced Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tennessee

HENRY G. HILL, M.D.
Clinic 847 Madison Avenue
Memphis, Tennessee
Practice Limited to:
Diseases and Injuries, Bones and Joints, Cripples
and Deformities, Braces and
Appliances

FRANK W. SMYTHE, M.D.
Practice Limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-Surgery
Physicians and Surgeons Bldg.
Memphis, Tennessee
Phones: Off: 6-3288 Res.: 29645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tennessee

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tennessee

GILBERT J. LEVY, M.D.
Practiced Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tennessee

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

DR. WILLIAM F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Mississippi

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Building
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy
Ionization for Hay Fever

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Mississippi

ROBERT H. BRUMFIELD, M.D., F.A.C.S.
General Surgery and Urology
McComb, Mississippi

DR. J. W. LIPSCOMB, JR.
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Mississippi

LAWRENCE W. LONG, B.A., M.D., F.A.C.S
410-412 Standard Life Bldg.
Jackson, Mississippi
GENERAL SURGERY
Surgical Diseases of Children

F. M. ACREE, M.D.
Greenville, Miss.

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

R. L. RONALD, M.D.
207-8 Miazza-Woods Bldg.
Meridian, Mississippi
Office Hours: 10 to 12 a. m.—3 to 5 p. m.

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians and Surgeons Bldg
(899 Madison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye. Ear, Nose and Throat
and
Bronchoscopy
Princess Theater Building
Columbus, Miss.

W. L. WILLIAMSON, M. D. F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

WILLIAM T. BLACK, M.D., F.A.C.S.
Gynecology
Medical Arts Building
Memphis, Tenn.

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg), F.A.C.S.
Genito-urinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

DOUGLAS D. BAUGH, M.D.
—CLINIC—
Diagnosis—Internal Medicine
First National Bank Building
Columbus, Miss.

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

WALTER ROBINSON, M. D.
Crisler Clinic
1291 Union Avenue
Memphis, Tennessee
Specilizing in
PATHOLOGY
ROENTGEN
DIAGNOSIS and THERAPY

DR. J. CASH KING
formerly at John Gaston Hospital
and University of Tennessee
announces the opening of his office
for the practice of RADIOLOGY
902 Madison Avenue
Memphis, Tenn. Telephone 6-7460

SHIELDS ABERNATHY, M.D., F.A.C.S.
HOWARD H. ASHBURY, M. D., Oncologist
CLINIC
For General Surgical and
Neoplastic Diseases
Complete Modern Radiological Equipment
1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING
I. G. Duncan, B.S., M.D., F.A.C.S.
J. S. Fleming, M.D.
GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION
Suite 1500-06 Commerce Title Bldg
Memphis, Tennessee

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS, Clinical Pathology
MARJORIE WADE, Bacteriology.

EDWARD CLAY MITCHELL—QUINN CLINIC

1073 Madison Avenue
Memphis, Tennessee
Practice Limited to
Infant Feeding and Diseases of Children
Hours: 10:00 A. M. to 12:00 M.
2:00 to 5:00 P. M.
By Appointment Phone 7-1307

DUANE CARR, M.D.

Diseases of the Chest
Endoscopy — Thoracic Surgery

Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

Telephones: 8-3662; 2-3226; 2-2138

THE MEDICAL CLINIC
910 North State
Jackson, Mississippi
George W. Owen, M.D., Allergy
T. E. Wilson, M.D., Cardiology & Internal Medicine
John Bullock, M.D., Pediatrics: Allergic Diseases of Children
Gayden Ward, M.D., Internal Medicine, Gastroenterology
Robin Harris, M.D., Eye, Ear, Nose & Throat: Diagnosis.
Diagnostic Facilities: X-ray, Electrocardiogram, Basal Metabolism Complete Clinical Laboratory, Allergy Laboratory.

THE SOUL OF THE SURGEON

By DR. RUDOLPH MATAS

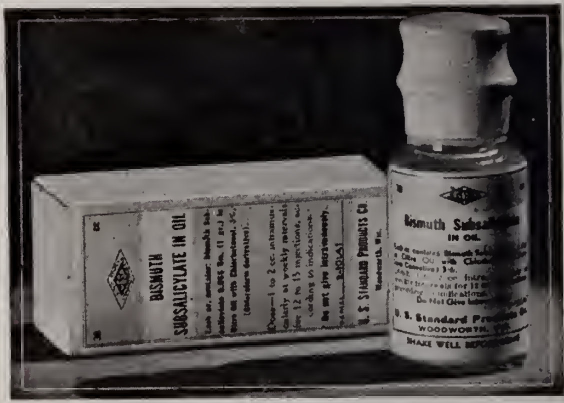
Composition cover sixty cents, leather eighty-five.

Send your order to

THE MISSISSIPPI DOCTOR
Booneville, Miss.

BISMUTH SUBSALICYLATE

U. S. S. P. CO.



for Treatment of Syphilis

ACCEPTED
AMERICAN MEDICAL ASSN

Bismuth Subsalicylate offers the following advantages:

- Relatively non-toxic when the dose is properly controlled.
- No contraindications when administered following arsphenamine or mercury.
- Practically non-irritating so far as local pain from the injection is concerned, and freedom from abscesses at site of injection.
- U. S. S. P. Co. Bismuth Subsalicylate does not settle solidly—easy to shake.

Write for catalog or information on any product in which you are interested.

UNITED STATES USSP STANDARD PRODUCTS

U.S. STANDARD PRODUCTS CO.
WOODWORTH, WISCONSIN.

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 221 North Farrish St.
Jackson, Mississippi

DUCKWORTH DRUG COMPANY
Booneville, Mississippi

Distributors of:

Luminal of Sodium

Tablets and Powder

Novocaine Ampoules

Atabrine

Elixir of Pryamidon

Theominal Tablets

WINTHROP CHEMCAL COMPANY
New York City

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most Modern Business School

A. S. McCLENDON, President

MEMPHIS' ***newest and most conveniently located hotel . . . .***

the Wm. Len

In addition to its famous southern cuisine and luxurious accommodations, the Wm. Len serves its guests an extra measure of genuine southern hospitality.

right down town in Memphis

ON MAIN AT MONROE

Hotel Wm. LEN

MEMPHIS, TENN.

R. E. McEachin, manager

JEFFERSON STANDARD LIFE INSURANCE CO.

The largest regular ordinary Life Insurance Company South of the Mason-Dixon Line.

Policy contracts especially adapted to members of the medical profession.

Trained life underwriters to advise and assist in securing your needs.

J. L. DENSON, District Manager
523-25 Lampton Building
Jackson, Miss.

JEFFERSON STANDARD LIFE INSURANCE CO.
JULIAN PRICE, President
Greensboro, N. C.

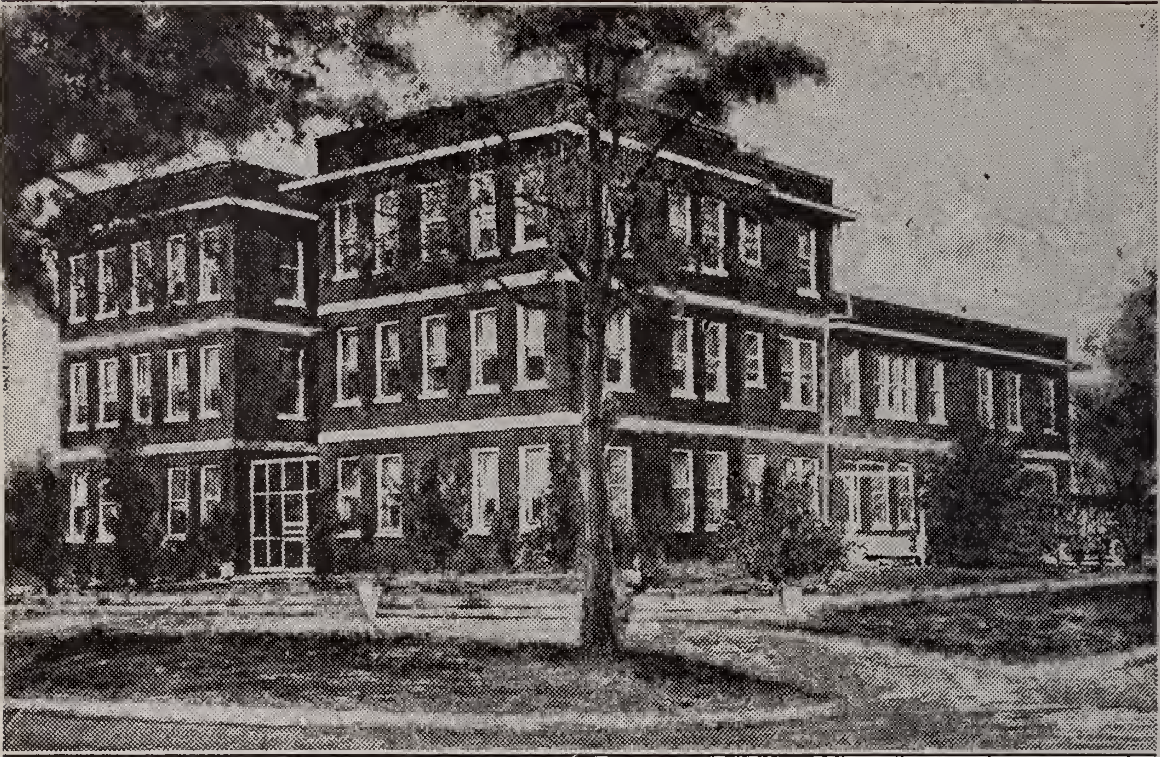
LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate



HOUSTON HOSPITAL, Inc., HOUSTON, MISSISSIPPI
Approved: American College of Surgeons and American Hospital Ass'n.

—FULL TIME STAFF—

V. B. PHILPOT, M.D., F.A.C.S.
Surgery and Gynecology
J. R. WILLIAMS, M.D.
X-ray, Superficial and Deep Therapy

G. G. ARMSTRONG, M.D., F.A. C.S.
Eye, Ear, Nose and Throat
O. B. CROCKER, B.A., B.S., M.D.
Diagnosis, Internal Medicine

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

Printing . . .

We Specialize in Printed Supplies for the Medical Profession

Magnolia Printing & Supply Company
B. W. SANDIFER, Mgr.
Phone 6022
511 E. Pearl St. Jackson, Miss.

TULANE UNIVERSITY OF LOUISIANA SCHOOL OF MEDICINE

●

CLINICS:

During the week of November 22-27, 1937, a full schedule of general clinics will be given daily and evengs. Guest and local speakers. Registration fee $5.00.

For program and further information write Director of Graduate Studies, 1430 Tulane Avenue, New Orleans, La.

DO YOU NEED . .

Prescription Blanks
Laboratory Blanks
Letter Heads
Statements
Envelopes
Blotters

SPECIAL: 10,000 Prescription Blanks........$9.50

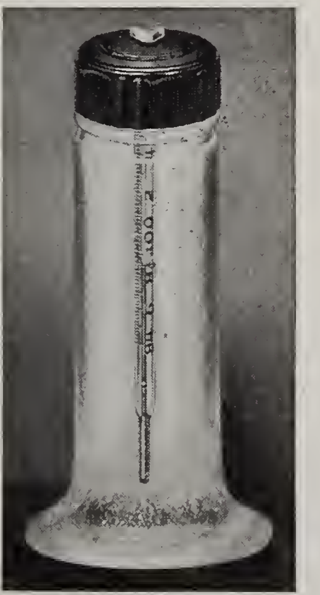
— Send your order to —

BOONEVILLE PRINTING CO., Inc.

Booneville, Miss.

APEX Easy to Read
FEVER THERMOMETER

with
Glass
Jar
Sterilizing
holder



75c each or $7.50 per dozen

McKESSON & ROBBINS, Inc.
Doster-Northington Division
Birmingham, Alabama

Founded in 1879

Allison's Wells

HOTEL - SANATORIUM

Famous through the years for the wonderful properties of its mineral water and as a health resort, Allison's Wells, under the direction of Dr. A. J. Brown this year has become the only sanatorium of its kind in Mississippi.

In addition to maintaining its full popularity as a resort-hotel, Allison's Wells has added a sanatorium department for the treatment of malaria, mild mental diseases, gastro-intestinal trouble, gall bladder trouble, arthritis and other troubles.

The sanatorium, which is guided by a board of governors composed of ethical physicians, is equipped with modern facilities.

For full information and rates, address

ALLISON'S WELLS,
HOTEL - SANATORIUM
On I. C. Main Line between Canton and Durant, on Jefferson Davis Highway
WAY, MISS.
A. J. Brown, M.D.
"A Source of Health In The Garden Spot of Central Mississippi"

THE WALLACE SANITARIUM
MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.
O. A. SCHMID, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

Off On A Call!

While At Home . . .

. . . . . While at home, modern, automatic electric servants are tending those tasks that used to be the man's job in every household. Today there are no fires to build for hot water heaters, no ranges to stoke. Countless other domestic duties that in earlier days distracted the professional and business man no longer exist . . . thanks to modern electric service.

A basic Mississippi industry that first pioneered for home happiness fourteen years ago, this company now employs over a thousand Mississippians and supplies modern electric service to over 305 cities, towns, communities and adjacent rural areas in the state.

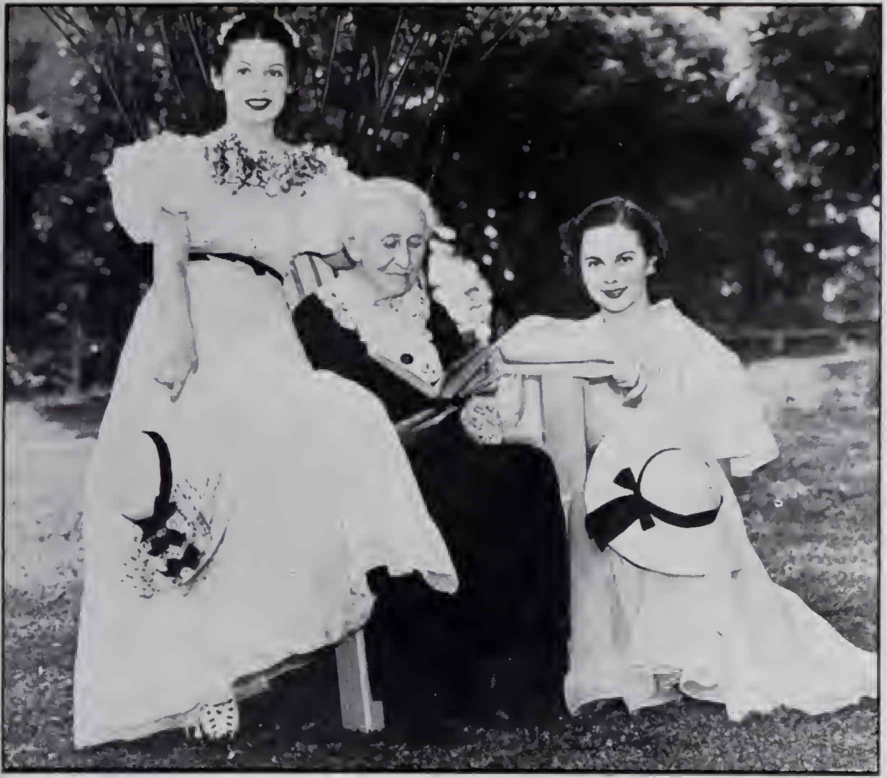
MISSISSIPPI POWER & LIGHT CO.

BLUE MOUNTAIN COLLEGE

BLUE MOUNTAIN,
MISSISSIPPI

Healthful
High Altitude
Mountain Springs
Outdoor Exercise
Golf
Tennis
Aquatics
Archery
Softball
Basketball
Volleyball

Lawrence T. Lowrey,
President



Beautiful youth and beautiful age acquired in the ways of health and righteousness.
"Mother" Berry and students of the college.

FULL MEMBERSHIP IN SOUTHERN ASSOCIATION OF COLLEGES
FULL MEMBERSHIP IN ASSOCIATION OF AMERICAN COLLEGES

Located 25 miles south of the Tennessee line in a high and healthful setting among the "Berkshire Hills of North Mississippi," on the slope of beautiful "Blue Mountain," the college in its sixty-fifth year continues to train a superior type of young woman in the arts, letters, and professions, preparing her for life as a woman will live it.

No cigarettes, no alcoholic beverages, regular hours, sufficient rest, scientifically planned diet, properly exercised bodies, adequate relaxation, wholesome recreation, and trained minds, bring girls through the four most delicate years of their lives at Blue Mountain, the years in which they are emerging from girlhood into womanhood, healthy in body, cultured in mind, refreshed in spirit.

Dr. Lawrence T. Lowrey

At the right is shown a group of typical Blue Mountain girls with Dr. John L. Hill, Nashville, Tenn., who gave the baccalaureate address on May 24, 1937.

Dr. M. E. Lapham
1430 Tulane ave
Tulane Univ. Sch. of Med.

Main Building

New Fenwick Sanitarium

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES

DRUG AND LIQUOR ADDICTIONS

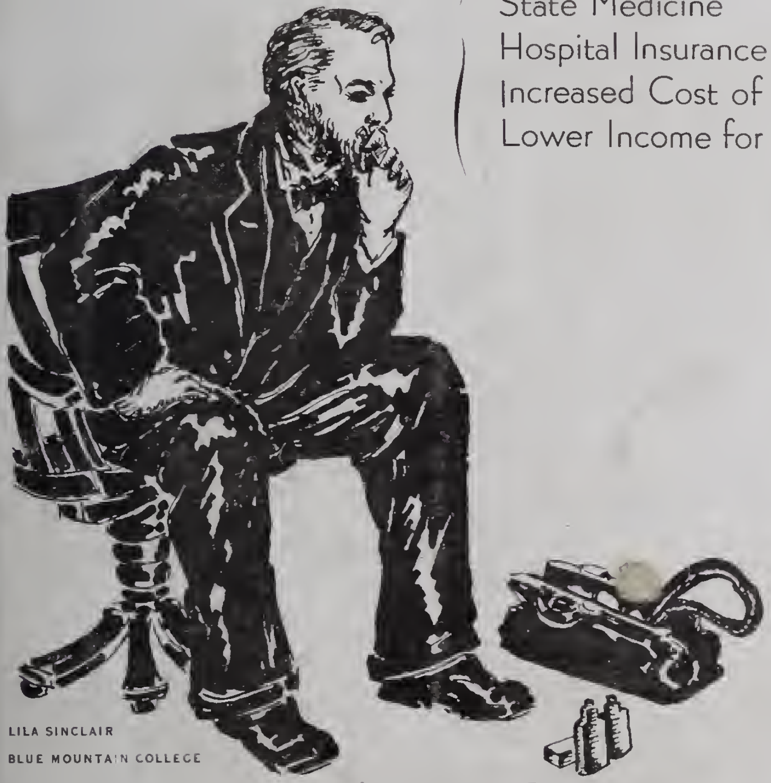
An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association — medical staff specially trained — clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds — homelike environments — located in the healthy and beautiful town of Covington, Louisiana — a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, NOVEMBER, 1937 NO. 6

THE N.Y. ACADEMY
OF MEDICINE
AUG 26 1938

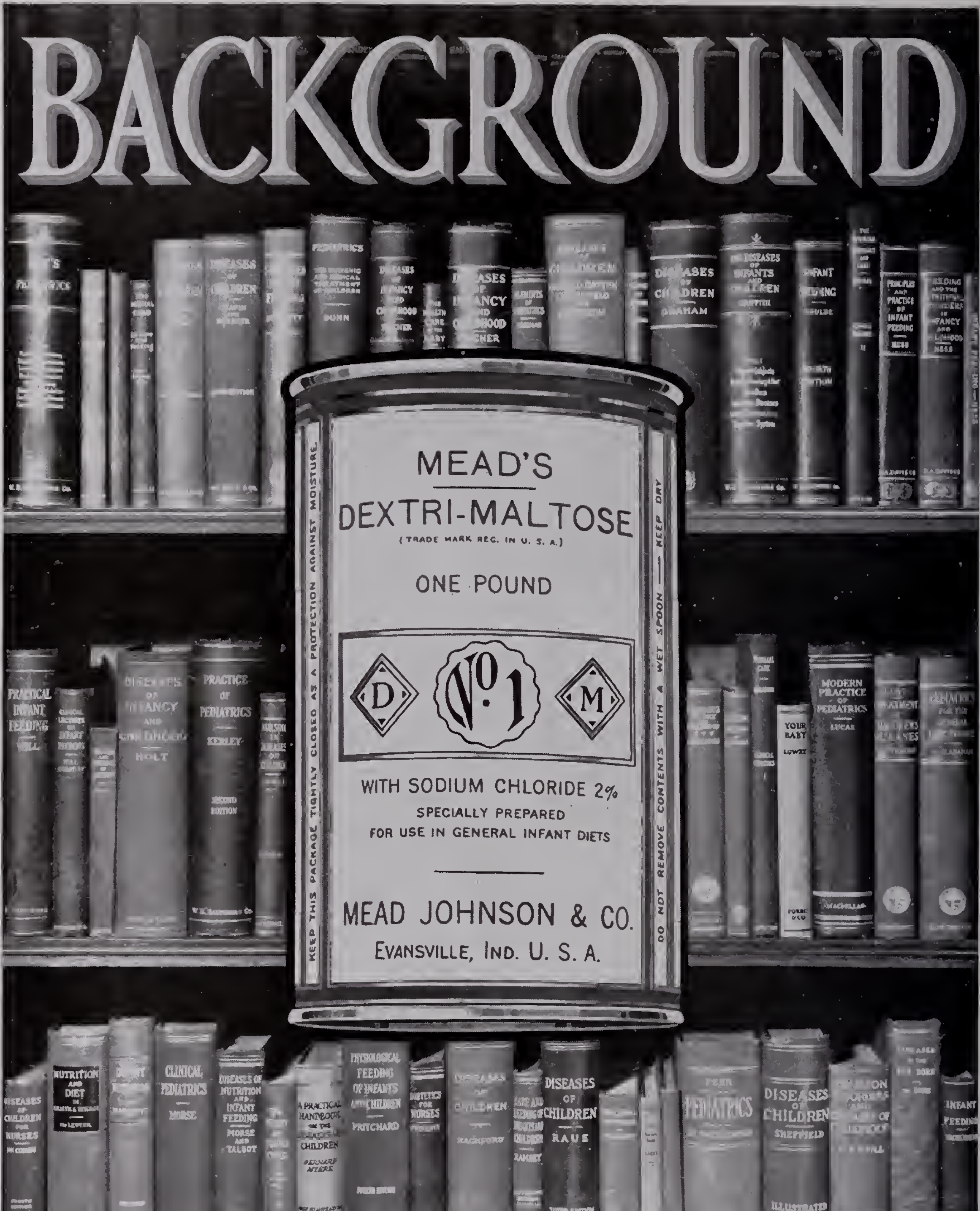
Specialization
Hospitalization
State Medicine
Hospital Insurance
Increased Cost of Practice
Lower Income for the Masses



LILA SINCLAIR
BLUE MOUNTAIN COLLEGE

The Country Practitioner

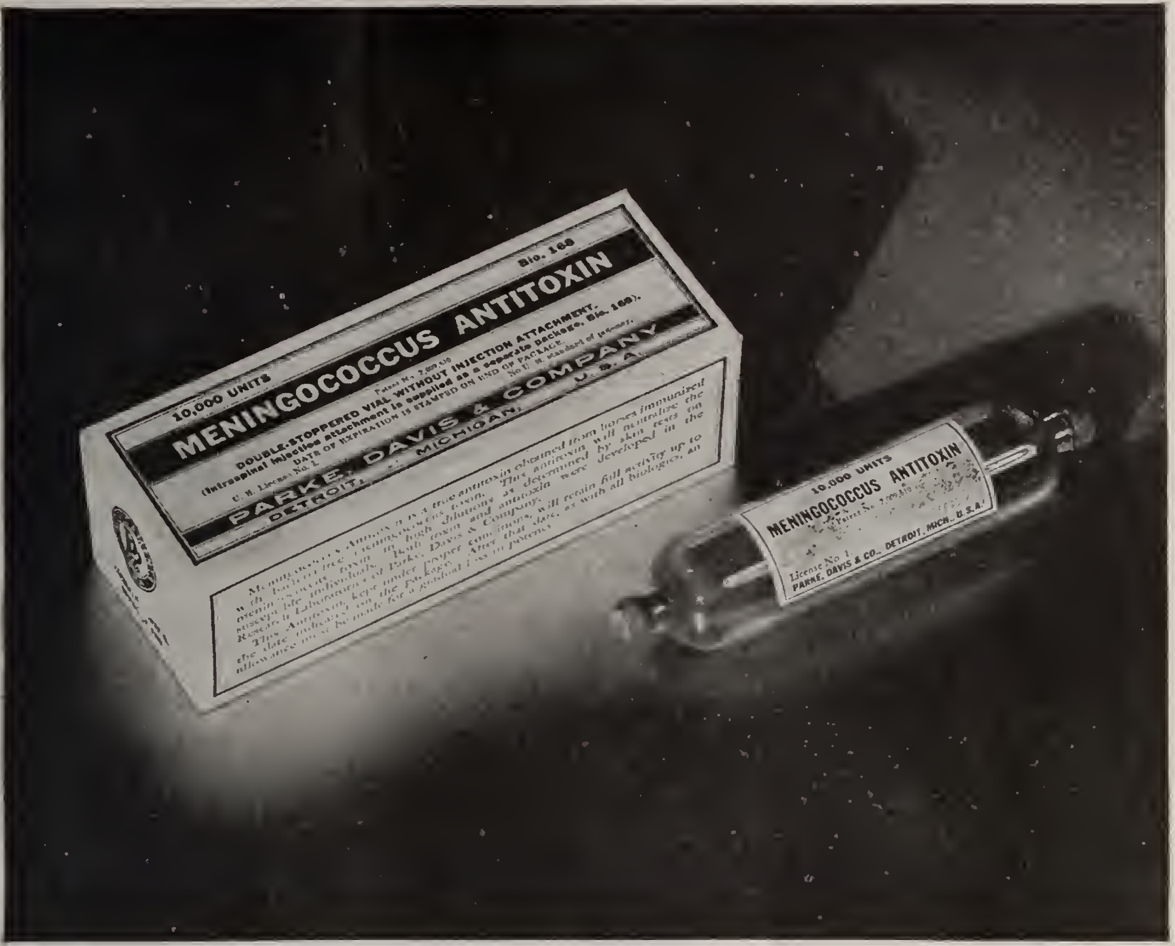
What Does The Future Hold For Me?


BACKGROUND
MEAD'S
DEXTRI-MALTOSE
(TRADE MARK REG. IN U. S. A.)
ONE POUND
D
No. 1
M
WITH SODIUM CHLORIDE 2%
SPECIALLY PREPARED
FOR USE IN GENERAL INFANT DIETS
MEAD JOHNSON & CO.
EVANSVILLE, IND. U. S. A.
KEEP THIS PACKAGE TIGHTLY CLOSED AS A PROTECTION AGAINST MOISTURE.
DO NOT REMOVE CONTENTS WITH A WET SPOON — KEEP DRY
DISEASES OF CHILDREN
PRACTICE OF PEDIATRICS
MODERN PRACTICE OF PEDIATRICS
CLINICAL PEDIATRICS
DISEASES OF CHILDREN

THE use of cow's milk, water and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

Mead Johnson & Company, Evansville, Indiana, U. S. A.


10,000 UNITS
MENINGOCOCCUS ANTITOXIN
Bio. 168
DOUBLE-STOPPERED VIAL WITHOUT INJECTION ATTACHMENT.
(Intraspinal injection attachment is supplied as a separate package, Bio. 169).
DATE OF EXPIRATION IS STAMPED ON END OF PACKAGE.
PARKE, DAVIS & COMPANY
DETROIT, MICHIGAN, U.S.A.
10,000 UNITS
MENINGOCOCCUS ANTITOXIN
License No. 1
PARKE, DAVIS & CO., DETROIT, MICH., U.S.A.

LOWER MORTALITY
QUICKER RECOVERY

Reduction in mortality, quicker recovery, and lowered incidence of complications have followed use of Meningococcus Antitoxin, P. D. & Co., in epidemic (meningococcic) meningitis. The reduction in mortality has, in certain series, approximated fifty per cent.

Meningococcus Antitoxin can be given intravenously, intramuscularly, and intraspinally. Experience indicates that the intravenous route is the most rapidly effective and that it should be used initially; intraspinal and intramuscular injections, supplementing intravenous administration, to be made when conditions so indicate.

Meningococcus Antitoxin was developed in the Research Laboratories of Parke, Davis & Company, and was introduced to the medical profession in 1934. It is supplied in containers with diaphragm stopper at each end, each container holding approximately 30 cc. and representing at least 10,000 units.

PARKE, DAVIS & COMPANY

THE WORLD'S LARGEST MAKERS OF PHARMACEUTICAL AND BIOLOGICAL PRODUCTS

Here's A **FLEXIBLE** Short Wave

STANDARD MODEL

Short Wave Generator

TWO METHODS OF APPLICATION!

INDUCTANCE CABLE

— as well as — CONDENSER-PADS

LIEBEL-FLARSHEIM
Standard Model
Short Wave Generator
— Accepted —
American Medical Assn.
Council on Physio-Therapy

A most acceptable unit for average use. Generally recognized as the best dollar-for-dollar Short Wave value available. Over a thousand now in use — all rendering eminently satisfactory service.

AMPLE POWER is generated for all types of pad and cable therapeutic treatment, including fever therapy. Current for minor office electro-surger is also available.

SIMPLE TO OPERATE — having only a single dial control for each modality — instantly and smoothly regulated — no jumps or steps. Shock proof — an all-purpose unit. Product of electro-medical apparatus manufacturers in business over twenty years.

This choice of applicators enables you to use the method best suited to the part being treated. Condenser-Pads are recommended for use on regular surfaces, and Inductance Cable for irregular surfaces. Either modality is quickly and easily applied.

MODERATELY PRICED — TERMS — Easy payments to suit your convenience will make the installation of this unit virtually a self-liquidating investment.

It will pay you to investigate the many advantages of this unit. It is the only Short Wave generator on the market affording the use of two methods of application, namely, the Inductance Cable and Condenser-Pad applicators — which have stood the test of prolonged use — nearly two years! Literature gives complete details.

THE DICK X-RAY COMPANY

MEDICAL ARTS BUILDING MEMPHIS, TENN.

Tear off Coupon and Mail Today—No Obligation

THE DICK X-RAY CO.
Medical Arts Bldg.
Memphis, Tenn.

Please let me have complete details on the L-F Standard Model Short Wave Generator — without any cost to me.

DR. ....

ADDRESS ....

TCS

Theobromine, gr. 3.40 Calcium, gr. 0.12 Salicylates, gr. 3.48
Phenobarbital, gr. 0.25

Diuretic, coronary vasodilator, myocardial and renal stimulant and neuro-circulatory sedative.

Indications: Hypertension, angina pectoris, coronary thrombosis, myocardial insufficiency, and edema.

* * *

Directions

One to three tablets three or four times daily.

* * *

Dispensed in bottles of 50 and 250 tablets

* * *

WM. P. POYTHRESS & COMPANY, *Inc.*
MANUFACTURING CHEMISTS
RICHMOND VIRGINIA

POYTHRESS 1856

HEAT HELPS YOU FIGHT

Pneumonia!

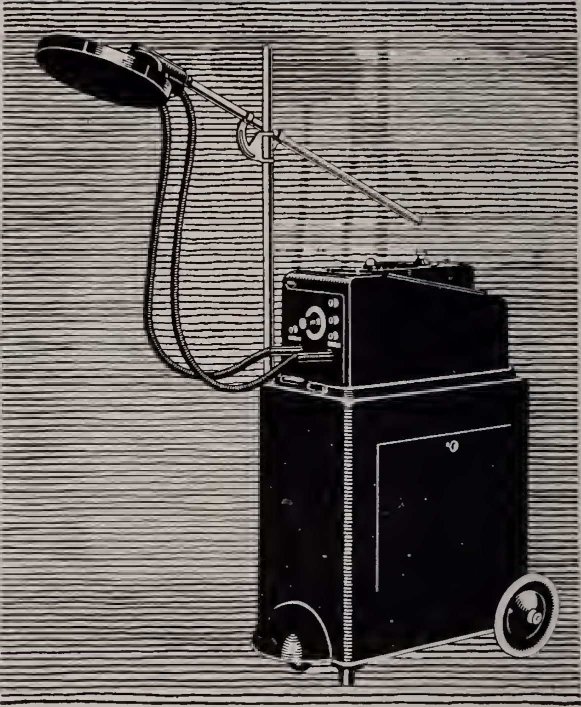
by relieving pain, promoting relaxation and rest, and lessening apprehension*

THESE, certainly, are vitally important considerations, tending to make your task LIGHTER by making the patient's comfort GREATER, and enabling you to carry the case along by routine medication until it has run its course. Eminently qualified investigators concur in these conclusions and so state in the literature.*

The G-E Inductotherm offers the *ideal* means of heating human tissues, not only because of the proven effectiveness of the basic principle—electromagnetic induction—but because of the extreme simplicity of application and absolute control of dosage. The patient's coverings need not be disturbed; there need be no weight on or direct contact with the body; there are no electrodes to apply to the skin surface. There is deep, soothing, beneficent heat that comes instantly when the switch is closed.

You *should* know the Inductotherm more intimately, for its use is definitely indicated wherever heat is indicated. You *can* learn all about it by merely mailing the handy coupon.*

GENERAL ELECTRIC
X-RAY CORPORATION
2012 JACKSON BLVD. CHICAGO, ILLINOIS



MAIL THIS COUPON TODAY

General Electric X-Ray Corporation A511
2012 Jackson Blvd., Chicago, Ill.

Please do these two things for me, neither of which place me under any obligation.

1. Have your representative arrange with me for a demonstration of the Inductotherm.

*2. Send me "Electromedical Notes and Abstracts" D2, dealing with the employment of heat in pneumonia.

Name ....

Address ....

HOYE'S SANITARIUM

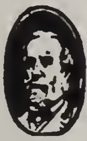
"IN THE MOUNTAINS OF MERIDIAN"
Meridian, Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital.



Robert E. Lee Hotel

"The High Spot of Southern Hospitality"

Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager **STEWART GAMMILL, Jr., Asst. Mgr.**

Short-Wave Diathermy Unit

STANDARD MODEL
500 WATTS OUTPUT
18 METERS

Standard accessory equipment furnished with the Hogan Brevatherm "Standard Model" includes:

1 pair 5" x 7" condenser plate electrodes
1 pair 7" x 9" condenser plate electrodes
2 pair cuff electrodes (medium and small)
1 felt "build-up" pad for each electrode above
1 pair rubber electrode bandages with fasteners
1 line cord and plug

Treatment cords with jack plugs are attached to each electrode.

THE GWINNER-MERCERE CO.
191 MADISON AVE.
MEMPHIS, TENN.

BAPTIST HOSPITAL
Jackson, Miss.

Helping the patient who cannot sleep

● The use of sedatives is not always necessary—nor always advisable. However, there are many cases where the use of a safe sedative will often prove helpful. This is particularly true during serious illness or before surgical procedures where sleep is essential to conserve the physical resources of the body.

In the selection of a sedative or hypnotic due consideration must be given to its safety, its therapeutic benefits and its freedom from undesirable after effects.

Ipral Calcium has long been used as a safe sedative and hypnotic. It is readily absorbed, effective in small dosage and rapidly eliminated, producing a sound, restful sleep from which the patient awakens calm and generally refreshed. In the usual therapeutic doses no untoward systemic by-effects have been reported. Undesirable cumulative effect may be avoided by proper regulation of the dosage.

Ipral Calcium (calcium ethylisopropylbarbiturate) is supplied in 2-gr. tablets and in powder form for use as a sedative and hypnotic.

Ipral Sodium (sodium ethylisopropylbarbiturate) is supplied in 2-gr. capsules for hypnotic use and in 4-gr. tablets for preanesthetic medication.

Ipral Calcium (Powder) is available in 1-oz. bottles. Tablets Ipral Calcium 2 gr., Tablets Ipral Sodium 4 gr., and Capsules Ipral Sodium 2 gr. are available in bottles of 100 and 1000.

For literature address Professional Service Department, 745 Fifth Avenue, New York

E·R·Squibb & Sons, New York
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

Ipral PRODUCTS

MADE BY E. R. SQUIBB & SONS, MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

MISSISSIPPI'S . . . only and most conveniently located Physician's and Surgeon's Supply House

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St.
Phone 1444
JACKSON, MISS.

Let's Grow With Mississippi

Your Every Need Quickly Answered

- Surgical Instruments
- Physio-Therapy
- Belts and Trusses
- Rubber Goods
- Wheel Chair Rentals
- Hospital Furniture

Etc.

The Friendly Store of Dependable Service

As Close As Your Telephone

IN THIS ISSUE

THE HEART IN INDUSTRIAL MEDICINE
O. W. Bethea, M.D. 1

THE CARE OF THE NORMAL CHILD UNTIL SCHOOL AGE
Edward Clay Mitchell, M.D. 5

PREVENTION OF MENTAL DISEASE
Dick C. McCool, M.D. 20

SUMMER DIARRHEA
A. G. LeRoy, M.D. 24

ERYTHROBLASTOSIS, WITH JAUNDICE, ANEMIA, AND EDEMA IN THE NEW-BORN; REPORT OF CASE
Clyde V. Croswell, M.D. 26

ARTERIOVENOUS FISTULA
T. K. Chandler, M.D. 30

BOOK REVIEW 34

EDITORIALS 35

OLE MISS RE-INSTATED AS MEDICAL COLLEGE 38

THE TULANE UNIVERSITY SCHOOL OF LOUISIANA SCHOOL OF MEDICINE 38

PRESIDENT SOUTHERN MEDICAL ASSOCIATION 39

SECRETARY SOUTHERN MEDICAL ASSOCIATION 40

THE BIG FOUR AT TULANE 42

DR. RUDOLPH MATAS 43

DR. O. W. BETHEA 43

DR. ISIDORE COHN 44

MISSISSIPPI PRESIDENTS OF SOUTHERN MEDICAL ASSOCIATION 44

DR. HARVEY F. GARRISON 46

DR. DAVID E. GUYTON 46

DR. SAM TERRELL McILWAIN 47

DR. R. M. ADAMS 47

NORTH MISSISSIPPI COMMUNITY HOSPITAL 48

MISSISSIPPI STATE BOARD OF HEALTH FLOAT 49

PROGRAM OF HOUSTON HOSPITAL 49

BOOK REVIEW 50

WOMAN'S AUXILIARY 51

THE SURGICAL TREATMENT OF PHTHISIS PULMONALIS
W. H. Sutherland, M.D. 52

RURAL OBSTETRICS—QUANTITY AND QUALITY
R. C. Eley, M.D. 57

POSTPARTUM HEMMORRHAGE
W. A. Ruch, M.D. 62

THE TRAUMATIC CHEST
Wesley Hall, M.D. 65

MISSISSIPPI STATE MEDICAL ASSOCIATION 70

WITH OUR ADVERTISERS

Allison's Wells xv
American Surgical Supply Company viii
Baptist Hospital, Jackson, Miss. vi
Bilhuber-Knoll Corp. xxii
Blue Mountain College .... Inside back cover
Courtesy Cards .... xi, xii, xiii xiv
Duckworth Drug Company xix
E. R. Squibb & Sons vii
Eli Lilly Company x
For Sale 50
General Electric X-Ray Corporation iv
H. A. Phillips Artificial Limb Company xix
Hotel Wm. Len xviii
Houston Hospital, Inc., Houston, Miss. xxi
Hoye's Sanitarium v
J. A. Majors Company xvi
Jefferson Standard Life Insurance Company xx
Lynnhurst Sanitarium xx
Mead-Johnson Company .... Inside front cover
McKesson & Robbins, Inc. xv
Mississippi Engraving Company xxi
Mississippi Power and Light Company xvii
New Fenwick Sanitarium .... back cover
Parke, Davis & Company i
Robert E. Lee Hotel v
Southern Medical Association xvi
The Dick X-Ray Company .... ii, xxiii
The Draughon School of Commerce xix
The Gwinner-Mercere Company vi
The Wallace Sanitarium xvii
Tulane University of Louisiana School of Medicine xvi
U. S. Standard Products Co. xiv
Welch's Sanitarium, Jackson, Miss. xxii
Wm. Poythress & Company iii

Ephedrine Inhalants, Lilly

● Winter days bring inclement weather. Diminished physical vigor and lowered resistance furnish additional predisposing causes for upper respiratory infection. The various prescription forms of ephedrine do much to bring symptomatic relief in such conditions, inasmuch as the discomfort from head colds is alleviated by relief of the nasal congestion.

Inhalant Ephedrine (Plain), Lilly, contains ephedrine (in the form of ephedrine cinnamic aldehyde and ephedrine benzaldehyde), 1 percent, in an aromatized hydrocarbon oil.

Inhalant Ephedrine Compound, Lilly, contains ephedrine, 1 percent, with menthol, camphor, and oil of thyme in a neutral hydrocarbon oil.

Elixir Ephedrine Sulfate, Solution Ephedrine Sulfate, 3 percent, and three syrups of ephedrine, as well as pulvules (filled capsules) in four different grainages, are also available.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

The Heart in Industrial Medicine*

O. W. BETHEA, M.D.
NEW ORLEANS, LA.

In these days of extensive legislation plus the benevolent care of employees by many corporations, the heart has become a major problem. The physician in industrial medicine is constantly confronted with the necessity of deciding as to whether or not the condition of the circulatory apparatus in an applicant justifies his employment or whether an individual should be continued in employment and, if so, in what type of endeavor, that the interest of all those concerned may best be served. We have no absolute criterion on which to base such decisions and must depend upon investigation of all available data. No matter what amount of care is exercised, many errors are inevitable. We are placed very much in the position of the Federal Weather Bureau that, in predicting the probable development or course of storms, causes unnecessary embarrassment to a multitude of people. However, taken all in all, their work results in saving many lives and much property.

The immensity of the problem is suggested by recent estimates[1,2] that there are between two and five million definite cases of heart disease in the United States, and we must remember that the majority of these are in adult males, the group with which we are most concerned today. One out of every six or seven deaths in this country are from heart disease. The increasing importance of our problem is indicated by mortality statistics recently published from Massachusetts[2] in which we find the following:

DEATHS PER 100,000 POPULATION

	Heart disease	Tuberculosis	Pneumonia
In 1910	131	182	110
In 1935	341	45	41

In estimatng the condition of the patient we are getting further away from the old stress upon a particular murmur or some special arrhythmia and more and more are coming to consider the heart as a whole. The shifting trend of opinion is well suggested by Hyman and Parsonnet when they say, "With the knowledge of heart disease founded for the most part upon the presence or absence of murmurs or irregularities of the pulse, the busy general practitioner soon learned that this yard stick of knowledge was not sufficient." Reasonable accuracy can be obtained only by consistent attention in details in studying each case. Every patient must be given the benefit of a carefully made history[3], a thorough physical examination, laboratory tests including a Wassermann and special tests as indicated. White[2] in his excellent text places these in the order of their importance, as follows: First, history; second, physical examination including auscultation; and third, "of less value but yet important," the electrocardiogram, x-ray studies, laboratory tests, etc.

The history is considered of such importance today that White[2] is only expressing the consensus of opinion when he states in regard to the history and physical examination that if he could make only one and had to leave the other to an assistant, that he would much prefer to take the history.

I[3] had the privilege of discussing this subject rather extensively before this body at the New Orleans meeting so I shall not go into details again. I should like to say, however, that increasing emphasis is being laid upon the beginning of the first symptoms experienced by the patient and the development of these in the progress of the case. My principal purpose today is to discuss the values that are being attached to certain major subjective and objective findings.

PAIN—We must remember that there is a wide difference in the sensory thresholds of different individuals. One person may experience definite discomfort from factors that would not even reach the consciousness of another. The same stimulus may cause many times as much pain in one individual as in another. It is true also that there may be a change in either direction in the sensory threshold of an individual. In heart disease particularly must we consider the nervous element and the tendency of many patients to exaggerate. We are much interested today in such factors as the character of the pain and its duration. Is it a quick stab, a prolonged aching or simply a sense of discomfort such as of weight or oppression? Of particular significance also is its location. The poststernal discomfort is accorded much more weight than one located at or beyond the left mid-clavicular line[4]. Students of heart disease are telling us that the precordial ache centered in the region of the left breast is often the result of the thumping of the heart against a sensitive thoracic wall[2]. The short stab in this area is accorded the same significance. White says "The majority of patients having such symptoms have no heart disease at all." A sensation located poststernally, even though it be a mere sense of oppression, may indicate organic disease. Heart pain is usually precipitated by four causes; physical effort, mental stress, a distended stomach and chilling of the surface of the body. At first it may take a combination of several of these to produce a conscious effect. Later on any one of these may do it. Of particular interest is the statement found in heart literature today that where the patient complains of superficial pressure, such for example as the contact of the stethoscope, it is usually an indication of a neuropathic factor and probably neurocirculatory asthenia. Many years ago Mackenzie[5] published his concept of the common cause of heart pain—that it is the immediate result of heart muscle fatigue. Therefore, anything that increases the burden on the heart or reduces its working efficiency may result in this symptom. From the industrial standpoint we would conclude that a pain referred to the region of the heart is not necessarily serious. It may mean only the excessive use of tobacco or a neuropathic status or that a fairly good heart is merely being overtaxed. In a great many of these cases, it is not a heart pain at all. For example, we have all seen these cases cured by hydrochloric acid after meals.

---

*Presented before the G. M. & N. Ry. Surgeons Assn. at Mobile, Ala., October 7, 1937.

MURMURS—This great "bogey-bear" of a previous generation is being accorded less importance today. It is encouraging to remember that most of these are systolic and that such a student as White[2] remarks "Most systolic murmurs do not indicate any organic heart disease." Again he states that systolic pulmonary murmurs are usually normal unless of considerable intensity when the patient is in the upright position.

In examining applicants for the Nursing School for the Southern Baptist Hospital I find that over one-third of them have definite systolic murmurs and unless there is other evidence suggestive of heart disease these murmurs do not militate against the acceptance of the applicant.

A further fact of interest is that the most serious heart disease may be present without any murmur at all. The increase in intensity in a murmur may be a favorable sign as indicating that the heart muscle is doing more efficient work and naturally the reverse is also true.

I once had a large, carefully selected group of skilled laborers referred to me that I might select 150 for foreign service. My instructions were that the men accepted must be of "wrought iron." Quite a number of those examined gave no history of any inconvenience and yet presented loud murmurs.. One of them who carried the loudest murmur to which I have ever listened was a boiler maker whose principal work was wielding a twenty pound sledge hammer. From the industrial viewpoint the finding of a murmur is important evidence but only evidence and must be considered in connection with other data.

ARRHYTHMIAS—Irregularities of the heart beat are fairly common. Lewis[6] in his grouping of these, lists three that are usually functional and relatively immaterial:

1. Sinus arrythmia,
2. Premature contractions,
3. Paroxysmal tachycardia.

He states that in substance that the first of these has no significance, that the second is probably present in all adults at some time though it may be found as a result of organic heart disease. My own personal data is naturally too limited to justify drawing from it definite conclusions, but I have felt that premature contractions that are easily abolished by moderate doses of quinine are probably functional in character and those that persist in spite of such treatment possibly have an organic background.

In a second group of arrhythmias he[6] places:

4. Auricular fibrillation,
5. Auricular flutter,
6. Heart Block (in its various grades),
7. Alternation of the heart.

These are fortunately comparatively rare but do indicate organic heart disease.

Any of these arrhythmias may be transient, for example, the result of an acute toxic state. Even auricular fibrillation may be present for a long period of years without interferring with normal activity on the part of the individual. This was stressed by Wood[7] in the last edition of his therapeutics. In industry we must consider any of this last group as a finding that may have definite significance, but should not be considered alone. "In the presence of auricular fibrillation we must think in terms of myocardial damage[8]."

The enlarged heart presents a problem that has not been fairly solved though much work is still being done towards the evaluation of this deviation from the normal. We can, of course, eliminate as immaterial the moderate enlargement of the heart that is often found in athletes or those doing heavy manual labor.

I believe with others that dilation is rare except at the autopsy table. In any event we must give careful consideration to cardiac enlargement and consider with it particularly the blood pressure and the presence or absence of gross valvular defects, especially mitral stenosis and aortic regurgitation.

Since the development of the portable sphygmometer the blood pressure has been a matter of much interest. At first there was a tendency to regard any patient showing any appreciable deviation from the normal as being a serious condition. The tendency now is to attach too little significance to this valuable finding. We must remember the admonition of Christian[9] that even in the patient dying of heart disease, a normal pressure may be maintained almost to the end. Those of us with many years of experience have had many patients under observation who have carried excessively high readings through decades of active and useful life. However, hypertension is of definite significance and must be given due consideration, particularly in the case of individuals who carry responsibilities that involve others. I refer here particularly to railway engineers, train dispatchers, etc. Also hypertension is of special significance in the presence of advanced arteriosclerosis and more especially in the presence of failing compensation.

The electrocardiogram is being used with increased frequency and as equipment is improved and our knowledge of interpretation increased, it is attaining increasing importance. However, it is only one of the findings that must be considered in determining the condition of the case before us. We know that the gravest heart disease may be present where the tracings are perfectly normal. I regard the electrocardiogram in internal medicine as being of special value in clearing up doubtful problems such as the difference between a premature contraction and a partial block, and the differentiation between coronary disease and other conditions causing heart pain. Of course, in the seriously ill patient, many details of unlimited value may be determined only by the use of this instrument.

In conclusion, let me say that in the limited time available I have been able to touch upon a few of the many important phases of the subject. I should like to emphasize my message of two years ago[3], namely that we are now laying less stress upon isolated details and more emphasis upon the circulatory apparatus as a whole, especially upon the status of the cardiac reserve, and it is here that the special function tests previously discussed with you have their field of usefulness.

Let me emphasize the importance of a carefully made and recorded examination preliminary to employment and repeated examinations through the years with the careful comparison of the records.

I should like to stress too the necessity for the careful consideration of all available data such as the family history, previous diseases, the character of work being done, the responsibilities carried by the individual, the habits (alcoholism, tobacco, etc.), age, weight, vascular status, etc., and the drawing of conclusions from the evidence as a whole.

Allow me to state my emphatic conviction that the one most important factor in diagnosis and prognosis—in planning what to do with the individual before us, is the status of the cardiac reserve particularly as evidenced by the individual in meeting his usual requirements of life.[10].

REFERENCES

1. Hyman, A. S., and Parsonnet, A. E., The Failing Heart of Middle Life. Philadelphia. F. A. Davis Co. 1932.
2. White, P. D., Heart Disease. New York, The McMillan Co., 1937.
3. Bethea, O. W., Cardiac Reserve in Relation to Continued Activity. Int. Med. Digest 26:240 (April) 1935.
4. Lewis, Sir Thomas, Diseases of the Heart. New York, The McMillan Co., 1933.
5. McKenzie, Sir James, Diseases of the Heart. Oxford Medicine, New York and London, Oxford University Press.
6. Lewis, Sir Thomas, Clinical Disorders of the Heart Beat. London, Shaw and Sons, 1933.
7. Wood, H. C., Therapeutic, Philadelphia, J. B. Lippincott Co. 1908.
8. Halsey, J. T., Personal Communications.
9. Christian, H. A., Diseases of the Heart. Oxford Medicine, New York and London University Press.
10. Bethea, O. W., Analysis of the History in the Diagnosis of Reduced Cardiac Reserve. *The Mississippi Doctor,* (Jan.) 1937.

The Care of the Normal Child Until School Age*

EDWARD CLAY MITCHELL, M.D.‡
Professor of Pediatrics, University of Tennessee
MEMPHIS, TENNESSEE

Until recently, perhaps one of the most neglected fields of medicine was the study of the care of the normal young child In this respect, physicians were too inclined to follow the path of least resistance, and leave the child to the tender but often misguided mercies of mother or grandmother. Within the past few years, however, much has been done to change this situation. The White House Conference, the American Academy of Pediatrics, the American Pediatric Society, the Pediatric Sections of the American Medical Association and the Southern Medical Association, and many other child health organizations, have given wide publicity to questions relating to the care of the infant and child of pre-school age. Lately, the subject has been broadened to include the study of hereditary influences, as well as maternal welfare problems. Medical schools, also, are now giving instruction in these matters. The object of all this investigation has been, not merely to keep the normal child normal, but to improve the health and usefulness of the physically and mentally handicapped by early institution of proper therapeutic measures.

The young physician just out of school and beginning practice is full of enthusiasm. He looks with pity, if not with contempt, upon the older physician with his years of experience. Having completed my thirtieth year in the practice of pediatrics, I feel that I may regard myself as one of the older physicians, and though I realize that there are many things which can be learned only through years of experience, I am also aware that if one relies wholly upon his experience and fails to keep informed of all that is new and worth while in his chosen field, he may easily deserve the opinion of the novice. He who achieves the best results remembers the words of Jacobi: "A man may do the same thing wrong for fifty years and call it experience."

A balanced physician is one who is not only benefited from his years of practice, but familiarizes himself with advancements as they are introduced.

The purpose of this paper is to discuss briefly those factors which today are recognized as vitally affecting the well being of the infant and young child, to point out some of the many pitfalls in growth and development, and to outline the accepted procedures in general care. These factors may be enumerated as follows:

I. Heredity
II. Environment
    A. Deformities and injuries at birth
    B. Care during the new-born period
    C. Elements required for growth and development
    D. Infant feeding
    E. Immunization
    F. Physical and mental health habits

HEREDITY

The materials with which the individual begins life are the cytoplasm and nucleus of the fertilized egg received from the two parents. The cytoplasm, although of great importance physiologically, has almost no part in producing differences between individuals. The nucleus, however, contains a collection of material, called the genes, which differ widely in each individual, the differences influencing all the characteristics of the organism. Manifestations of the differences among the genes are known as heredity.

The ovum from the mother and sperm from the father each contain all the genes necessary to produce a complete individual. Thus, the child starts life as a double, though rather thoroughly blended, individual. Each gene of the paternal series has a corresponding gene of the maternal series. The genes are therefore in pairs, one gene from each pair being derived from the mother, the other from the father. The two members of any pair of genes have, in general, the same function. If one affects the blood type, the other does likewise. One gene from the mother may produce normal blood, while the gene from the father may produce blood that lacks certain constituents for coagulation. One gene from either the father or mother may be defective while the other is normal. One gene of a pair from the mother may produce blue eyes; that from the father, brown eyes. Thus, the mother gives to the offspring all the material required for the development of an individual of one type, and the father gives all the material necessary for the development of another type. When two genes are diverse in their action, the individual may be affected in one of three ways:

---

*Read before the meeting of the Central Medical Society of Mississippi, Jackson, Miss., September 7, 1937.

‡From the Department of Pediatrics, University of Tennessee, Memphis, Tenn.

(1). The diverse genes may give rise to characteristics intermediate between those that would result from either type of gene alone.

(2). If one of the genes of a pair is defective, the defective gene may produce its full effect, irrespective of the presence of the normal gene. In this event, the defective gene is said to be dominant. In man, there are a number of dominant defective genes, although they are in the minority.

(3). When one gene of a pair is defective, the other normal, the normal gene may perform the required function completely, so that no defect appears in the individual. This is the usual result. (See diagrams No. 1, 2, 3, and 4).

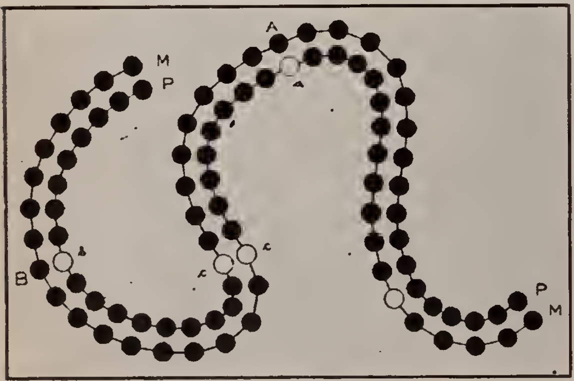


Fig. 1. Chain showing arrangement of genes.
P—father.
M—mother.

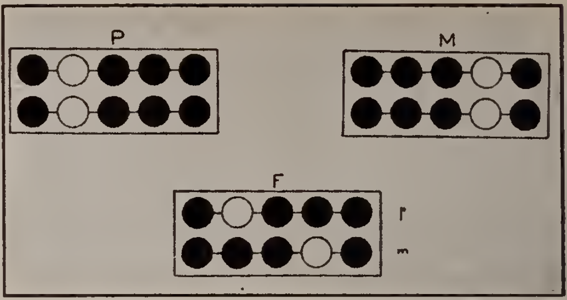


Fig. 2. P—father—shows 2 defective genes. M—mother—shows 2 defective genes. F—child—shows one normal dominant gene in each situation which performs the required function perfectly.

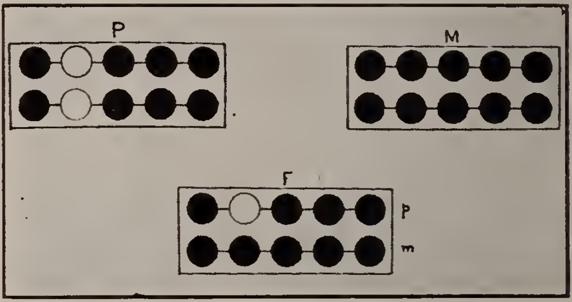


Fig. 3. P—father has 2 defective genes.
M—mother has no defective genes in this arrangement.
F—child has 1 normal and 1 defective gene. The normal gene being dominant insures function.

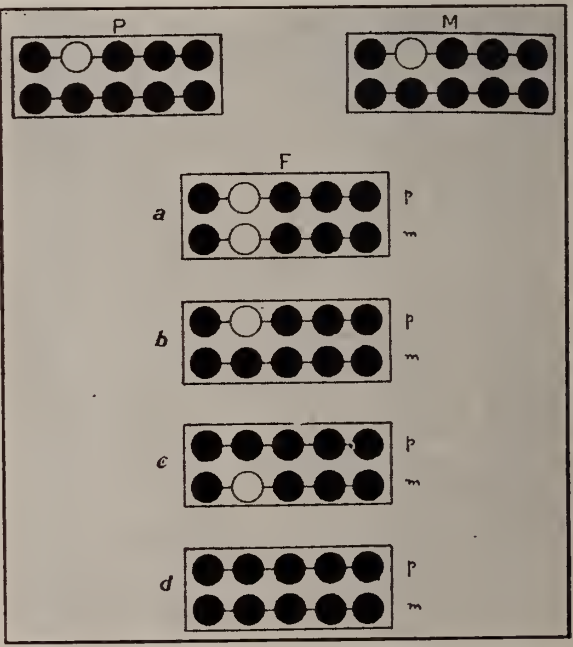


Fig. 4. P—father has 1 defective gene.
M—mother has 1 defective gene same arrangement.
F—(A) the child inherits 2 defective genes with interference of function. (B) and (C) receive 1 normal gene from each parent; these genes being dominant there is no interference with function. (D) receives 1 normal gene from both parents.

One method of determining the characteristics influenced by the genes is by a study of those which are inherited in the so-called Mendelian ratio. This shows directly the characteristics which depend upon genes. A second, and far more exact method, is by the study of twins in comparison with other individuals.

There are two classes of twins: those known as identical twins, and those known as fraternal twins. Identical twins are the result of the splitting of the nucleus of the same egg; they have exactly the same number and types of genes in exactly the same relationship. One egg twins are remarkably alike in physical and physiologic characteristics. They are always of the same sex, and they resemble each other so closely in face and figure that distinction is difficult. Their eyes, hair, and complexions are of the same color; their teeth are alike even to irregularities; their height and weight are similar; and their finger prints are as similar as those of the right and left of the same person. Body imperfections, weaknesses, and tendencies to certain diseases appear alike in both. These tendencies, moreover, are apt to be manifest in both at approximately the same time. Identical twins may differ in a few respects, however. For example, one may be right-handed, and the other left-handed—a peculiarity which occurs in the process of division. Further, one may be more vigorous than the other. This is explained by the fact that when such twins are born separate, one is better developed than the other, the underlying cause being, presumably, an unequal division of the egg nucleus.

Physiologic characteristics, although in the main determined by genes, may be altered by environmental influences. The blood type, which seems to remain unchanged regardless of environment, is an exception. Susceptibility and immunity to disease, however, are affected by conditions under which the individual develops, and specific organic functions, as those of the glandular system, are subject to change by diet and other factors.

The effect of environment upon the mental characteristics of identical twins has been an especially interesting problem of research. Newman, by applying a number of tests in intelligence, will, temperament, and emotional reaction, studied the intelligence quotient between two members of fifty pairs of identical twins to be 5.3, whereas the average difference between two members of fifty pairs of fraternal twins was twice as great, being 9.9. Since the environment of fraternal twins is as much alike as that of identical twins, the latter's greater equality of intelligence must be due to the fact that they carry the same combination of genes. It was noteworthy that in several of the pairs of identical twins the difference in mentality between the two members was marked, while in five pairs the intelligence quotient of each member was exactly the same.

Moral characteristics of the two types of twins were investigated by Johannes Lange. He found thirty convicted criminals, each of whom was a member of a pair of twins, the other twin in every case being of the same sex. He traced and examined the other twin, and discovered that thirteen pairs were identical twins, the other seventeen fraternal twins. Of the thirteen pairs of identical twins containing one known criminal, it turned out that the other member was also a criminal, in ten of the pairs. Of the fraternal twins, both members were found to be criminal in three of the seventeen pairs. Lange's study would indicate that environment played no part.

I have discussed the subject of heredity at some length because there is a tendency to confuse those factors attributable to heredity with those distinctly the result of environment. Heredity, however, is not an altogether dependable force. Nature sometimes plays queer pranks. For example, a normal child may spring from defective parents, a genius from mediocre stock, a large child from small parents. Yet, to some extent the child will resemble the parents or forbears in both size and mentality. To determine a standard for growth and development, therefore, one must study the hereditary influences of each child.

Before leaving the subject, it might be well to speak of the importance of considering the heredity of children who are open to adoption. It is far more necessary that the future parents know the innate tendencies of the child than that they know whether or not its mother and father possessed a marriage certificate. It should be obligatory for those in charge of children for adoption to learn their physical and mental background, and to furnish the foster parents this information.

ENVIRONMENT

Environment is a term used to embrace all factors, except heredity, which affect the growth and development of the child. It begins with the inception of pregnancy. The fetus is subject to transmissible diseases of the mother, as syphilis, tuberculosis, and various acute infections. These diseases are not transmitted in the blood stream, since there is no direct communication between the blood of the mother and that of the infant; transmission probably occurs through an abrasion of the membranes, by direct extension through the amniotic fluid, or as a result of the infections of the genitourinary tract at the time of birth. It has been proven that treatment of the syphilitic mother, even though not begun until early pregnancy, may prevent syphilis in the offspring. It has also been shown that by proper management, the tuberculous mother or one suffering from some other debilitating condition, may have a normal child.

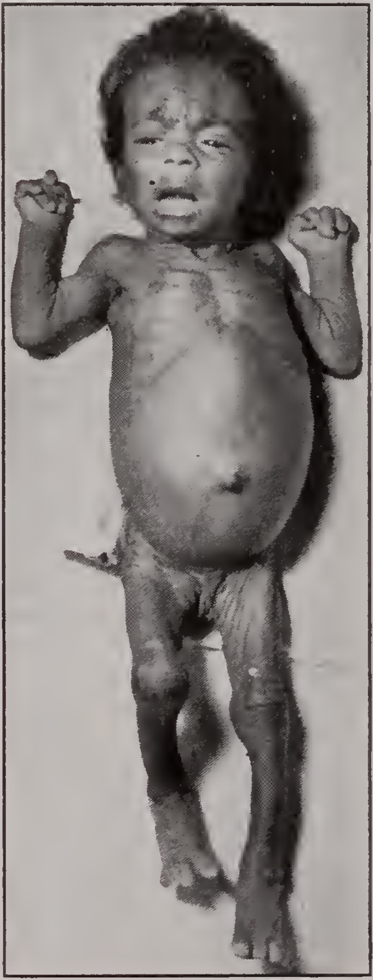


Fig 5. Syphilitic infant (congenital).

Acute infections in utero may be responsible for lasting defects. Fetal peritonitis, serous meningitis, and acute contagious diseases are among the afflictions which the unborn child may contract (see slide). Nos. 5 and 6.

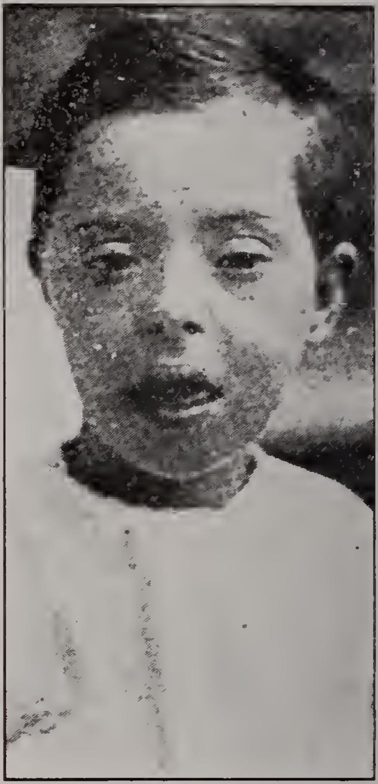


Fig. 6. Mongolian Idiot.

The physical condition and habits of the mother during pregnancy have a vital bearing upon the normal development of the fetus. It is essential that she take a diet adequate to insure calcification of fetal bones and teeth, which begins about the fortieth week of life, and at the same time to preserve her own from decay. Careful observance of correct habits and dietary rules may also prevent kidney disorders, with which both mother and child may easily be affected during this time.

We, as pediatricians, can only emphasize what the obstetrician is constantly saying: the mother should be examined frequently during pregnancy and should be treated for any disease condition that may be present or may arise. She should lead a regular life, have the proper diet, take plenty of exercise, and keep away from contagion. Also, her home life should be as pleasant as possible. The obstetrician should impress upon the mother that these matters concern the child's welfare as well as her own, and should insist that his instructions be followed meticulously. Careless obstetrics has no place in the realm of medicine.

Deformities and Injuries at Birth.—Infant deformities may be divided into three classes: those that arise early in pregnancy, during formation of the fetus; those that develop in later months; and those caused by birth accident. Early deformities may be the result of disease or malnutrition. Several factors may be responsible for birth injuries: (1) disproportion of the passage and size of the head; (2) malposition; (3) accidents, as from forceps manipulations, constriction of the cord, or inhalation of amniotic fluid or mucus. Intracranial hemorrhage is one of the most common of birth injuries; it may occur even in Caesarian section. Accoroding to one theory, it is caused by the sudden difference in pressure between the uterus and outside air, which ruptures the tender tentorial fibers.

Care During the New-Born Period.—Since the temperature of the fetus in the uterus and after expulsion differs about two degrees, the infant should be shielded from exposure and wrapped immediately in warm blankets. When resuscitation is necessary, the most gentle method should be employed. Cyanosis may be induced by intracranial hemorrhage or by atelectasis; the latter may in turn be caused by plugging of some of the respiratory passages. Seldom does heart failure occur. It has been my experience that heat and gentle manipulation suffice to establish respiration, and that heart stimulants are not only unnecessary, but harmful.

It is now generally regarded as better to anoint the child with oil at birth. Babies thus treated are less likely to have skin diseases. After a few hours the oil may be rubbed off gently and the infant bathed. Precautions should be taken against exposure during the initial bath, particularly if the infant is premature.

The normal infant should be put to the breast every six hours to establish the sucking reflex. When this is done, he should be given the breast every three hours during the day and twice at night.

It is a common mistake to allow the child to lose too much weight during the new-born period At the John Gaston Hospital we found the average loss of a normal infant to be 6.5 per cent of the body weight. In the premature, especially, weight loss should be prevented. No infant should lose weight after the sixth day; the normal child, on the contrary, should begin to regain by this time and should attain the birth weight by the tenth day. As the weight is increased, the stools should show some evidenve of digested milk. The persistent green, thin stool means, almost without exception, starvation. Perhaps nine-tenths of the so-called colic is hunger. Gas or distended abdomen is no criterion of distinction, as they occur in both starvation and colic.

Early loss of weight can be prevented by giving a 5 per cent solution of glucose until the breast milk is available. If the glucose produces fermentative diarrhea, however, it should be discontinued. Complementary feeding should be established by the third day if the flow of milk is not sufficient. Since few mothers are able to nurse their babies successfully, complementary feeding usually is required.

Infant mortality is highest during the newborn period. To obviate am many of the dangers as possible, the child should be carefully examined for defects immediately following birth and every few days thereafter. At this period, some defects may not become apparent at once. Especially is this true of congenital heart weaknesses, of which the characteristic findings, particularly the murmur, may be discovered only after repeated examination. Prolonged anesthesia rarely causes permanent injury, although it may render the child stuporous for several days. According to our experience at the John Gaston Hospital, morphine given several hours before delivery affects the infant most.

Disturbances of mineral metabolism in the new-born, particularly tetany or hypocalcemia, have been a subject of much interest recently. The infant suffering from this condition may have slight convulsions, may assume a typical tetany position, may have persistant vomiting, or may be merely extremely nervous, as evidenced by spasm when the bed or pillow is struck. One ampoule of 10 c.c. of calcium gluconate diluted to about 60 c.c. with sterile water or saline administered in a single deep intramuscular injection, in addition to two or three minims of parathyroid hormone given at two hour intervals, quickly corrects this defect. Undiluted calcium gluconate given superficially will virtually always produce deep abscesses.

During this new-born period the whole foundation of the infant's life is begun. It is perhaps the most important period of an individual's life. Only a few of the major problems have been mentioned. Careful study of the difficulties encountered at this time, and the institution of proper treatment, will not only lower infant mortality, but will prevent many defects that might otherwise arise and be carried throughout life.

Elements Required for Growth and Development.—Growth may be defined as an increase in stature of the individual; development, the acquisition of body attributes and functions as compared to the physical growth. In the normal child, the apparent and actual age will coincide; that is, both growth and development will be commensurate with the number of his years. However, one often sees children normal in growth but backward in development, or vice versa. As an example, a child of one year may be well developed as to size and weight, but unable to sit up or crawl, as well as lacking in teeth. Such a child will be normal in growth but backward in development.

There are certain elements which play an important role in growth and development. These are (1) the food constituents, including proteins, fats, and carbohydrates, (2) mineral salts, (3) water, (4) sunlight, (5) the vitamins, (6) the digestive secretions, and (7) the internal or endocrine secretions.

1. (Food elements)—The child requires two and one-half times as much protein as the adult. The child is growing, whereas the adult is merely replacing waste tissue. The animal protein furnished the infant is found largely in milk. The protein in all artificial milk is tougher and harder to digest than that in breast milk, although boiling seems to break up this protein and render it more assimilable. An excess of protein in the food may cause skin reactions in allergic subjects.

Fats are essential for the development of certain tissues. Also, they supply heat and energy. Improper balance of fat in the diet sometimes results in ketosis. As a rule, an excess of fats leads first to constipation; if the condition persists, tolerance ceases and fermentation takes place. Too little fat may produce severe disturbances, as various forms of malnutrition, xerophthalmia, or scleroderma. In one section of the Children's Hospital in Vienna in 1922 there were fifty cases of xerophthalmia with every degree of blindness. In Austria, no fats had been available since the beginning of the war. Fat is less well tolerated than any other element by children who suffer from diarrhea or upset digestion.

Carbohydrates supply energy and assist in the combustion of fats and proteins. If an excess of carbohydrates is taken over a long period of time, it is stored up as fat and produces obesity.

2. (Mineral Salts)—These elements are indispensable to normal infant metabolism. One of the most vital of the minerals is iron. The liver of the young infant is stored with sufficient iron to last breast fed babies approximately four months. The proper amount to keep up the hemoglobin ratio must then be supplied by other foods.

Calcium and phosphorus are required principally for growth of the skeletal structures of the body. Disproportion in their rate of absorption is sad to produce rickets and similar disturbances. The parathyroid hormone is believed to govern calcium absorption in some measure. Interference with proper secretion of the parathyroid glands tends to reduce the calcium in the blood. Tetany is a manifestation of hypocalcemia.

The alkali and acid ration in the blood is of great importance. Nature establishes a definite alkali reserve in the blood serum and cells. When this reserve is exceeded, the resulting condition is spoken of as alkalosis; when it is diminished, acidosis occurs. The acid ratio is maintained by carbon dioxide circulating in the blood stream and by the stomach acids. The normal balance between these two conditions is maintained by the elimination of alkali through the urine and stools, and of carbon dioxide through the lungs. It can readily be upset by disease, metabolic disturbances, extreme fatigue, or by certain forms of therapy.

3. (Water)—The normal infant requires daily an amount of water equal to one-sixth of its body weight. Under conditions of disease or stress, a larger quantity is needed.

4. (Sunlight)—This is as necessary to the child as to the growing plant.

5. (The vitamins)—The need for vitamins is now as well recognized by the laity as by the physician. They will, therefore, be discussed only briefly as to source, function, and the effects of their lack.

Vitamin "A", a fat soluble vitamin, is found principally in the liver oil of codfish, halibut, and tuna. In its pure form it is known as carotine. Its chief function in the child is stimulation of growth and resistance. This vitamin is said to assist particularly in the prevention of upper respiratory infections. When it is deficient in the diet, the salivary glands function subnormally and become atrophied; the mucus secreting cells of the stomach and intestines are atrophied, the tips of the villi are necrossed, and bacteria fill the crypts and gland lumina.

Vitamin "B" is a water soluble vitamin. It is found largely in the husks of certain grains, in yeast, and in the leaves of green vegetables. This vitamin is believed to stimulate appetite and aid growth. Its deficiency causes a decrease in digestive secretions, retarded motility of the gastrointestinal tract, delayed passage time and putrefaction, and inflammation of the stomach and duodenum. In the latter condition, it is thought that toxins are absorbed from the intestine which affect the heart and nervous system.

In deficiency of vitamin "B_2" or "G" (the pellagra preventng factor), there is abdominal pain, a raw, beefy tongue, and gastrointestinal irritation with passage of mucus and blood.

Vitamin "C" is a water soluble vitamin contained in raw citrous fruits and tomatoes. It is not present in cooked fruits. In its pure form, it is ascorbutic acid, which is marketed under various trade names, among them cevitannic acid and cebione. Its efficiency results in lack of appetite and, in severe cases, bleeding of the gums, hemorrhage of the subcutaneous tissues, and certain bone lesions.

Vitamin "D" is also a water soluble vitamin. It is present in cod liver oil and other fish oils, and in milk and butter, particularly when the cows are on pasture during the summer. In nature, it is more abundant when the sun's rays are most potent. Irradiated ergosterol is a pure form of this vitamin. It is sold under the trade name of viosterol. Since this preparation contains only vitamin "D", it is not a substitute for cod liver oil. The evidence at hand suggests that vitamin "D" enhances absorption of the calcium and phosphorus from the intestine, and its lack produces an increased loss of calcium and phosphorus in the feces. A diet unbalanced in these elements, though not completely deficient in "D", may cause rickets. When rendered acid, however, such a diet will prevent rickets because of the more complete absorption of calcium and phosphorus.

There is still a good deal of controversy as to the effect of each of these vitamins, as evidenced by a symposium conducted on this subject during the meeting of the Federation of American Societies for Experimental Biology, which was held in Memphis in April of this year. It is generally agreed, nevertheless, that the vitamins are essential to proper metabolism in the child.

6. (Digestive secretions)—Even in the infant, all the digestive secretions are present. The younger the child, however, the less stable are the secretions, the more easily digestion is upset, and the more often metabolic disturbances occur.

7. (Internal secretions)—Proper food and hygienic supervision are not the only requirements for normal growth and development of the child. Internal secretions also determine to a large extent the degree of its progress. The secretions which are especially influential in children are those of the thyroid, parathyroid, pituitary, and pancreatic glands.

The lack of thyroid secretion at birth causes a condition known as cretinism (see slides Nos. 7 and 8). Later in life, hypothyroidism induces a peculiar train of symptoms known as myxedema. Deficiency, without complete lack

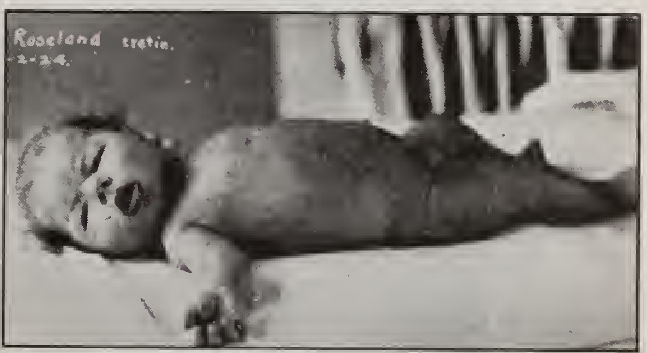


Fig. 7. Cretinism—before treatment.

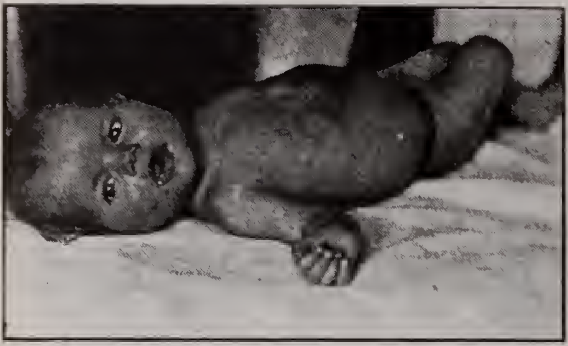
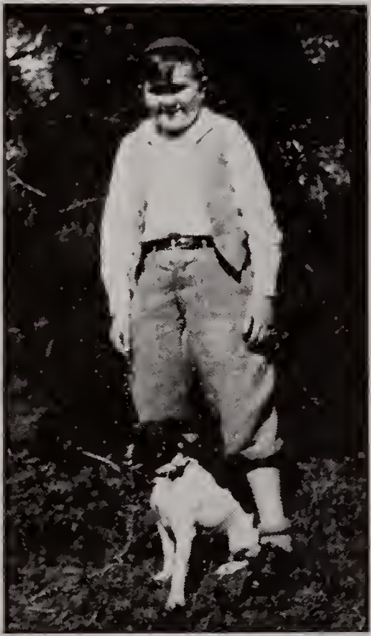


Fig. 8. Cretinism—1 month after treatment.

of secretion, leads to such minor afflictions as constipation and mental dullness. (See slide No. 9).

The parathyroid glands are supposed to affect calcium absorption. As has been stated, inadequate function of the glands causes tetany (see slide No. 10), for which treatment by the hormone is beneficial, particularly in the new-born.



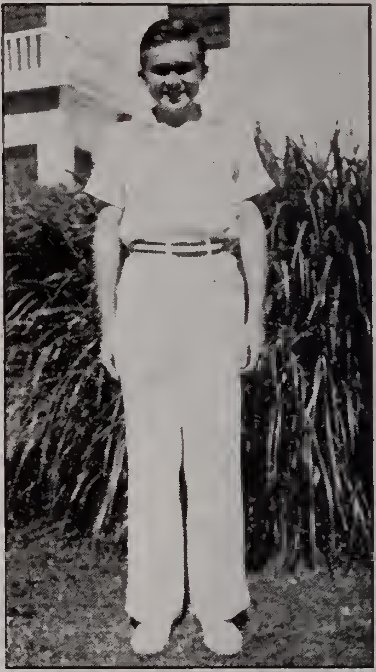


Fig. 9. Robert E. Age 9 years. Up until the eighth year stood at the head of his class in school. He was normal in size. Symptoms of obesity developed rapidly. He failed to make his grade in the ninth year. Physical examination at the time picture was taken demonstrates that he was much over-weight. Metabolic rate was minus 33. Thyroid was started; whole desicated gland. Next picture, age 13 years. He is again normal in size and doing exceptionally good work in school.

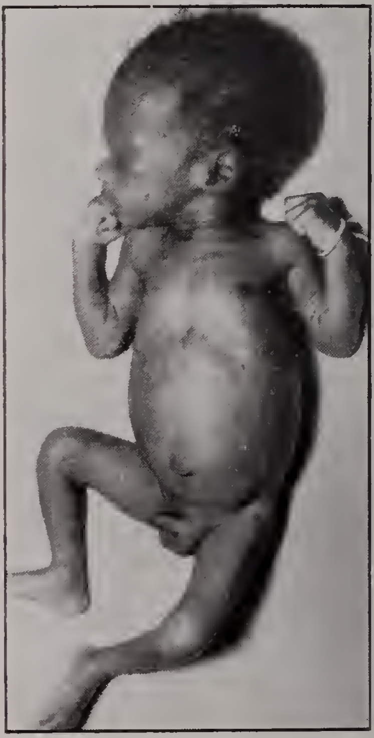


Fig. 10. Tetany—probably no interference with parathyroid glands.

Effects of the lack of pituitary hormone are observed in the group of signs and symptoms known as Frohlich's syndrome (see slide No. 11). Over-production of the hormone causes the individual to grow to giant proportions. Recently, the pituitary glands have been regarded as the key glands or regulators of the endocrine system, and the lack of their secretion has been said to affect the efficiency of other glands.

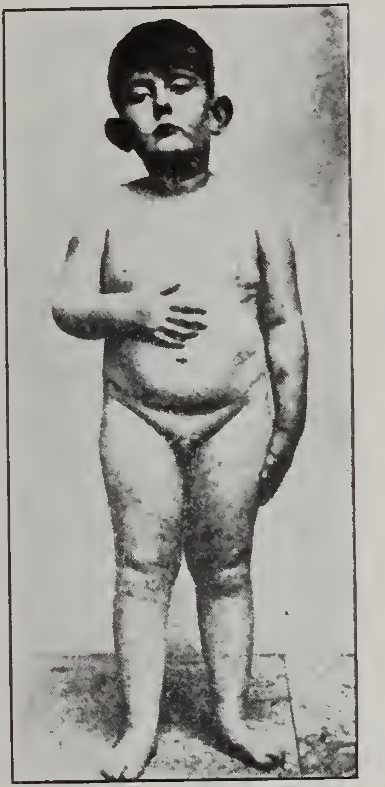


Fig. 11. Frohlich's syndrome, or hypopituitarism.

The theory that deficiency of pancreatic secretion is responsible for diabetes mellitus is familiar to all. It is likewise well known that this disease may occur in the extremely young. We have observed an infant of four months in coma with diabetes. In the child, when recognized and properly treated, the prognosis is better than for older persons, since the cells of the pancreas may be expected to grow and overcome the early deficiency.

Infant Feeding.—All infant feeding is based upon the principles of growth and nutrition. Milk in some form is the ideal food. Milk contains one gram of calcium to the quart; by comparison, it has been found that no other food possesses so large amount (see slide No. 12). In recent years there has been considerable agitation in some quarters against milk feeding. If nature had not intended the young animal of every species to have milk, some other secretion would have been provided.

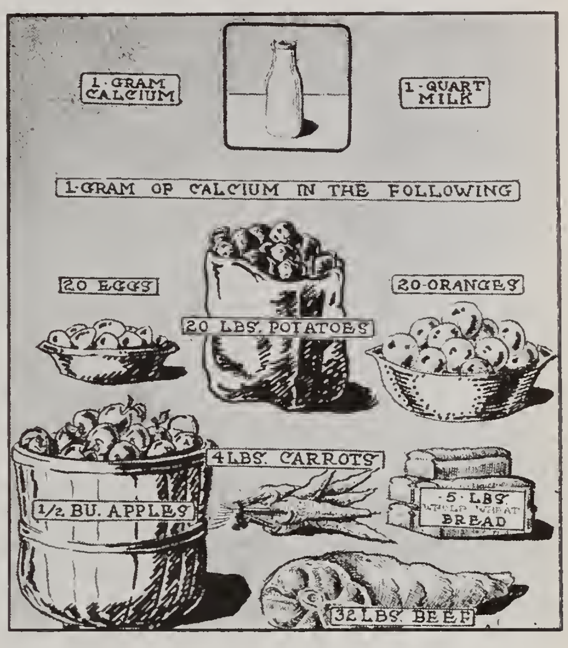


Fig. 12. Amount of calcium contained in different foods.

Breast milk is, of course, to be preferred. When I began to practice pediatrics thirty years ago, ninety per cent of the mothers at least partially nursed their babies. Now, less than ten per cent of city mothers nurse satisfactorily even for a short time, and less than one-half nurse them at all. In many instances, this situation is due to lack of desire; in others, it can be explained only by the fact that the change in the manner of living of the average American girl is not conducive to nursing.

All food other than breast milk is artificial. There is no food that will meet the requirements of every infant; no nectar ambrosia, or manna from Heaven. Food that agrees with one baby is poison to another.

1. (Breast feeding)—Many infants are starved unnecessarily because of lack of sufficient breast milk. When the child fails to gain the proper weight he is not happy, he does not sleep, and his stools are thin and watery. As a rule, weaning is not indicated, but complementary foods should be given. The amount required may be determined by weighing the

child before and after nursing.

A few infants will not thrive on mother's milk, even though the quantity is sufficient. We formerly spoke of this as an idiosyncrasy to mother's milk; now, we believe it is usually because of an allergic sensitivity. A change in the mother's diet will often remedy the situation. Occasionally, we see a breast fed infant who is happy and gains weight, yet has some severe skin eruption, as eczema. Again, by changing the diet of the mother the eruption may appear. Skin tests of the infant and mother will aid in detecting the offending allergen.

Not only in breast feeding, but in artificial feeding as well, allergy sometimes plays a distinct role. It may cause colic, vomiting, loss of weight, skin eruptions, and in fact almost any manifestation. In the infant, the gastrointestinal tract is affected more often than the respiratory system. As a rule, the condition is hereditary. There is generally a definite family history of allergy,—perhaps not in the parents, but in other relatives, even though a generation removed. Whenever a child presents a difficult feeding problem, the family should be closely investigated for allergy.

I always explain to the mother just what we mean by allergy. I often state that inheritance is the loaded gun, but the allergen, or the offending factor, is the trigger. If we can remove this trigger, the gun will do no harm.

2. (Artificial feeding)—There has been a good deal of argument as to the relative value of fresh certified milk and evaporated milk, or milk boiled to one-half its volume with no sugar added. It is claimed that boiling kills vitamins and other elements present in fresh milk. While this probably is true, at the present time the majority of pediatricians are feeding evaporated milk. As a matter of fact, boiled milk has several advantages: (1) the protein is more easily digested; (2) the milk is prepared under sanitary conditions and is clean; (3) the cows are fed properly, and there is no variation in the quality from season to season; and (4) the cream content is constant. Unless one is absolutely sure of the milk supply, canned milk is now preferable for the young infant. If the supply is good, I usually change to fresh milk after the first fifteen months.

3. (Feeding rules)—There are no feeding rules other than those necessary to determine the minimum requirements of the child. There is no maximum requirement. Every infant should receive fifty calories per pound of body weight every twenty-four hours. This caloric requirement is based upon the normal weight computed from the child's size; in other words, the over-weight infant requires less than fifty calories, the under-weight, more. This method is now so universally followed that all artificial foods are put up in containers upon which is printed the caloric content of the various dilutions.

During the first two months, we recommend feeding the infant every three hours during the day and twice at night. At three months, six daily feedings are given and the night feeding is omitted. Beginning with the fourth month, feedings are given five times daily at four hour intervals, the last feeding being at ten o'clock in the evening. After nine months, the ten o'clock feeding is omitted. At fifteen months, the three meal a day plan, with a light lunch in the afternoon, is advised. Under this regime, the heavy meal should be taken at noon. We vary little from this during the pre-school age.

For both the artificial fed and breast fed baby we begin giving vitamin "C" in the form of orange juice or tomato juice at one month. The amount should be small at first and gradually increased until the baby is taking the juice of one orange at the age of six months. if the infant is unable to tolerate vitamin "C" in the form of orange juice, the pure vitamin in the form of ascorbutic acid may be substituted.

Cod liver oil is given at the same time. We usually start the infant on one-half teaspoonful and increase the amount until two or three teaspoonfuls are taken daily at the age of six months. The concentrated cod liver oil in the form of drops is quite satisfactory if a good brand is selected. Ten drops daily is the usual dose for the infant of six months.

Extra vitamins of "B ?", "B_2", and "C" types are often beneficial to the child who does not thrive.

Cereals should be started when the child reaches the age of four months. The amount should be small in the beginning and increased to three or four tablespoonfuls daily. It should be given together with the bottle at ten o'clock in the morning. Jello and canned fruits, as apple sauce and apricots, are added at this time.

At four and one-half months, the child may begin to take vegetables. The best time for this feeding is at two o'clock in the afternoon.

An egg yolk is given at five months, and the whole egg is permitted at the tenth or eleventh month.

Meat is added to the diet about the fifteenth month.

In the matter of solid foods, we follow exactly the same regime for breast fed and artificially fed babies.

For the breast baby, regardless of how successful the nursing, an artificial feeding once a day is recommended at the fourth month and another about the sixth month. The infant is then weaned without difficulty by the ninth month. The season of the year should make no difference as to the time of weaning. With a few exceptions, the breast milk is of no value after the ninth month; in fact, more harm may be done by nursing over too long a period than by not nursing at all. The so-called "second summer" does not occur when the child is fed rationally.

The doctor should never leave the regulation of the feeding to the mother. Such a practice is just as absurd as allowing the mother to prescribe the dosage of medicine in illnesses. He should explain how the milk is to be kept and should designate the amount, the time, and the method of preparation of each feeding. He should instruct the mother to hold the child while it is nursing, and to inspect the hole in the nipple before nursing begins. At the John Gaston Hospital, especial attention to the feeding problems of each child has reduced infant mortality from nutritional diseases by half.

Among those factors which should be considered with relation to infant feeding is weight. After the birth weight is reached, every infant, under normal conditions, should gain at least five ounces per week. The weight should be doubled by the fifth month and trebled in one year. It should increase approximately six and one-half pounds a year for the first five years, four and one-half pounds for the next three years, then six and one-half pounds per year until and throughout puberty. The rapid increase begins a little earlier in girls than in boys, so that girls at the age of ten to eleven years are sometimes heavier than boys at the same age. The weight curve then crosses again. There is, however, no standard chart of weights. It is ridiculous to expect all children, any more than all adults, to conform to a definite weight chart. The weight of the child with small bones and small frame, and from small parents, will not approximate that of the large, heavy boned child from large parents.

We are able to state by study that a child is underweight, but I do not believe that any individual, doctor or nurse, can say definitely that any child is fifteen or twenty pounds underweight. This is manifestly impossible. There is an inclination among school nurses to send home to parents a note to this effect; such a practice should be discouraged.

Immunization.—One of the causes of high mortality in the young infant is infection. It lowers resistance, and when resistance is lowered, metabolism suffers. Diarrhea, followed by dehydration, is often an acute manifestation of altered metabolism. More chronic infection may result in weight loss and anemia.

Nature attempts to protect the infant from contagion of many diseases. The antibodies of measles, German measles, diphtheria, scarlet fever, mumps, and acute anterior poliomyelitis are transmitted from the mother who has previously had these diseases. These antibodies usually protect the infant for approximately the first six months of life. By that time, the infant's own body functions are sufficiently well established to enable him to withstand better these forms of contagion. The antibodies are transmitted, regardless of whether the mother is able to furnish breast milk to her infant.

There are, however, a large number of diseases against which the mother is unable to immunize the child, among them, whooping cough, smallpox, chicken pox, tuberculosis, syphilis, tetanus, erysipelas, upper respiratory infections, and pyogenic infections of other types. Particularly dangerous to the young infant are the pyogenic infections. Impetigo, for example, may seem a minor type of infection, yet in the new-born it is sometime fatal. Whooping cough is also extremely dangerous to the infant, and its danger is increased in proportion to the child's age and state of nutrition. To safeguard children as much as possible from these infections, efforts are being made toward prevention by sanitation and immunization.

Adherence to the rules of sanitation, including isolation of the infected individual, will go far toward controlling the spread of contagious diseases. Especial care should be exercised to keep all children and, in fact, all other persons away from the young infant. A carrier may infect an entire new-born ward. The kissing and handling of babies is a pernicious habit and should never be permitted.

At the present time there are a few diseases which are preventable by immunization. The public should have the benefit of this knowledge. There are other diseases, also, against which immunization has been practiced, but in these the benefits remain to be proven. Again, the public should know there is a reasonable degree of doubt; a false sense of security may have harmful results.

1. (Diphtheria)—The highest mortality from dipththeria occurs from the sixth month to the third year, probably the highest incidence being from the eighteenth month to the second year. Natural immunity ceases at six months. The rational time to immunize against this disease, therefore, is the sixth month.

There has been considerable discussion as to the best method of immunization: whether the alum precipitated toxoid, which is given in one dose, or the soluble toxoid, in three doses, is most effective. Professor Madsden*, of Denmark, when questioned upon this subject, stated that good results were being obtained from both methods, and that in his opinion the results depended upon the individual supply of toxoid. He had found that one entire batch of toxoid would produce good results, whereas another, made in exactly the same manner, would be less effective. When asked whether he thought the biological houses, with all their facilities, could produce a toxoid which would give consistent results from every series, his reply was that he did not believe they could; there would still be some difference.

Our experience at the University of Tennessee over a period of three years indicated that alum precipitated toxoid causes more severe reaction, especially locally. Further, our follow up of children thus inoculated showed that approximately 65 to 70 per cent were immune after six months, as indicated by the Schick test, and that probably a larger percentage, when again given the Schick test before entering school, were susceptible. Three 1 c.c. doses of soluble toxoid administered at intervals of two weeks caused fewer reactions. Approximately 80 to 60 per cent were immunized, and the follow up Schick test at pre-school age showed a smaller number of relapses. For these reasons, we are now using exclusively in private and hospital practice the three dose method of soluble toxoid.

A few statements regarding the Schick test might be apropos. This test is of no value in the young infant until after toxoid in some form has been given. A negative reaction six months following the last dose of toxoid indicates immunity. A positive reaction after six months calls for a second series of toxoid; if, six months after the second series, the Schick test still gives a positive reaction, further inoculation is useless. If a child innoculated at six months has a negative reaction before the first year, the test should be repeated before school age, since immunity changes in some children. It is not known at present how long immunity lasts following toxoid inoculation. This probably is an individual peculiarity.

2. (Smallpox)—In the South, where smallpox still is endemic, it is believed a good practice to vaccinate a child at nine months of age. There is usually little reaction at this time. Further, it has been stated that encephalitis following vaccination is much less likely to occur when the diphtheria has been given previously.

3. (Typhoid fever)—Inoculation against typhoid fever seldom is necessary before the second year unless an epidemic prevails. Typhoid is extremely rare in the infant and young child.

4. (Scarlet fever)—There is still much discussion as to whether it is advisable to immunize a child against scarlet fever. The most suitable age is also open to question. Less than 25 per cent of all exposed persons develop scarlet fever, and except in certain epidemics, this is not a dangerous infection. Active immunization as practiced by the Dicks has not prevented scarlet fever as successfully as toxoid prevents diphtheria. There are also reactions following this type of inoculation. The Dick test, moreover, is extremely difficult to make. It must be read by a white light some time between the eighteenth and twenty-fourth hours. It is said to be positive if the skin has the slightest blush. On your children's service in Memphis and in private prac-

---

*Private Conversation.

tice, we do not recommend routine inoculation against scarlet fever.

5. (Whooping cough)—Here, also, there are numerous opinions as to the efficacy and best methods of inoculation. Probably the method most widely followed at the present time is that of Sauer. He first suggested that, for children six months of age and over, the vaccine be given once a week, ½ c.c. in each arm at the first dose, 1½ c.c. at the second, and 2 c.c. in each arm at the third, making a total of 8 c.c. For children from three to six months, one-half this amount was advised. Later, he recommended that the dosage for older children be increased to 12 c.c. The results as published by Sauer and others have been excellent. During the past year, I have inoculated a large number of children by Sauer's procedure. Sixteen of the number later developed severe whooping cough. Eight of these sixteen received the 12 c.c. dosage. I am not enthusiastic at the present time over whooping cough inoculation for prevention by this or any other method. I use it at the request of parents, but tell them I do not guarantee its results.

Another treatment for whooping cough prevention which deserves mention is the postnasal injection of pertussis antigen, as recommended by Mulford and now marketed by Sharp and Dohme. We have used it in about 200 cases, with varying results. In some instances, the children have resisted infection even after exposure; in others, it seemed to play no part in preventon.

We have had a few very excellent results from treatment with the intransal injections after the disease has been established. In these cases there has been a suspension of severe paroxysms that seemed almost miraculous; this may have been incidental, although it would have been difficult to persuade the parents that the treatments were not responsible. I am forced to admit, however, that the intranasal injections apparently were without effect in the majority of patients so treated.

In a recent symposium in New York, the opinion seemed to coincide with what I have expressed. At the meeting of the American Academy of Pediatrics, Region 2, in conjunction with the Southern Medical Association meeting, Dr. Sauer will lead a symposium on immunization against whooping cough. All members of the Southern Medical Association are invited to attend this panel discussion. I am still open to conviction as to the value of whooping cough vaccine, but, because of my own experience, I must be convinced.

Whooping cough is indeed a scourge, and any method of immunization which holds any promise should be given a thorough and conscientious trial. The procedures now in use do not warrant enthusiasm, and the physician should take care not to offer too much hope in the matter of prevention.

Physical and Mental Health Habits.—Regular physical inspection will go far to prevent illness in children. During the first six months, the infant should be taken to the doctor at least once a month, then twice monthly during the second six months, and thereafter at six month intervals. By this means, if physical defects appear they can be treated early.

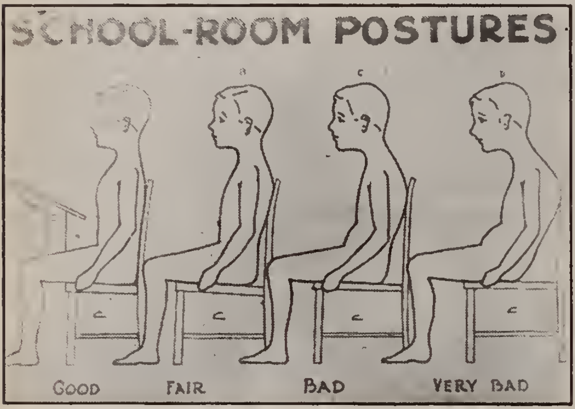
One of the most common of physical defects to which children are subject is a spastic or tight rectum. The physician should look for this condition when the child is found to require suppositories before each movement. A tight rectum may be cured by careful digital manipulation. More often, however, constipation comes from faulty habits: children would rather play than attend to the duties of nature. As a rule, the use of cathartics other than mineral oil or milk of magnesia should be discouraged. It has been my experience that the drug habit enhances rather than cures constipation. Enuresis and diuresis are other deplorable conditions which may be merely habitual. The doctor who knows the child and understands his possibilities can best judge as to the proper methods of correction of these habits.

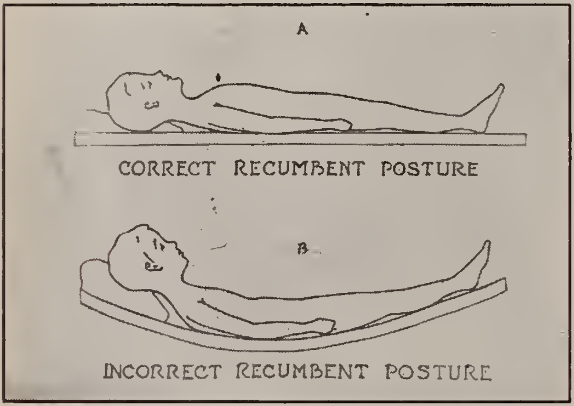
In this connection, I should like to say that I believe too many tonsils are being removed. The tonsil has a function, and when healthy tonsils are removed, the danger of upper respiratory infection is increased. Mass removal by school physicians, clinics, and others should not be practiced. In this matter, as in every other, each child should be treated individually.

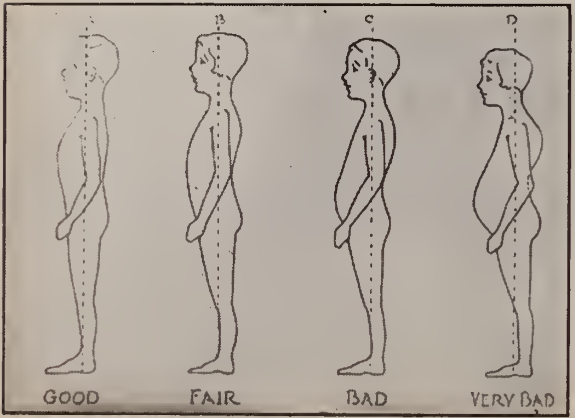
Every child should be taught habits of cleanliness. The daily bath is more than an aid to health; it promotes self respect and assurance.

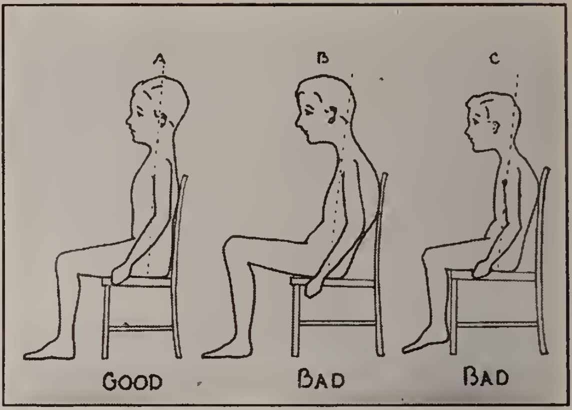
Cultivation of correct posture is also important from the psychological as well as the physical standpoint. The stooped, slovenly child lacks ambition and other qualities which lead to success and happiness. Further, impairment of some of the body functions, as elimination, is induced by poor posture (see slides Nos. 13, 14, 15, 16). If the erect position is insisted upon in childhood, the individual will remain erect throughout life.

Physical, mental, and environmental factors are inseparably interwoven in the development of the child. Again, heredity plays a role. As has been stated, upon the parents and directly upon the collection of genes received depends the hereditary tendencies of the child, and, aside from identical twins, no two infants start life with the same characteristics. Whatever the inheritance, however, environment will modify it to some extent. The most phlegmatic child, if placed in a home where there is constant wrangling and excitement, will soon show that he is being affected. The highly nervous child, if placed in a quiet environment, will show its influence. To me, child psychology means applied common sense. Every child cannot be expected to follow a single pattern, or flourish under the same rule of guidance.









While mothering and careful attention are essential to the child, they can be carried entirely too far. Devotion should not displace intelligence. The time to begin training the child is at birth. From the first, he should be taught regularity. His feedings should be given at regular intervals. He should not be fed between meals. He should be made comfortable in his bed or carriage, and should not be picked up or played with. As he grows older, he should be put to bed in a dark room. He should never be frightened. A child reared in this manner usually does not know the meaning of the word "fear." When he is frightened of the doctor, for instance, what can one expect other than that he will fight, scream, and cry at the doctor's visit? He should be taught that the doctor is his friend, then the doctor can so approach him that he will remain his friend.

Every child should learn to mind from infancy. There is no more sordid sight than a child scratching, kicking, slapping, and even at times cursing his mother. The reformatory schools and penetentiaries are filled with such children, and I do not believe it is their fault

In plain English, the child should be fed; he should be required to rest at regular hours; he should be given an adequate amount of affection—taught that those around him love him; he should be taught to mind, and should grow and vegetate and not be shown too much attention. This type of child will be loved by those with whom he comes in contact as he progresses throughout childhood. He will also respect the rights of others in all his future. One rarely sees a child thus trained who must be forced to eat. He takes his food as a matter of course. He is taught that things given him are good for him, and he never has any other idea. We should pity the poor child who feels he is doing the family a favor by eating his spinach; who refuses his food unless grandmother is running the radio, grandfather is cutting antics on the floor, and mother and father are making monkeys of themselves in some other manner. Who, in the name of common sense, would eat? If the situation has not progressed too far, this child, when placed with other children in a large family, will go to the table and eat ravenously. Or, if taken from his home environment, he will soon eat a sufficient quantity without any coercion whatever. It isn't the child, but the family who needs treatment in these cases. I often tell mothers, and, when possible, in the presence of the grandmother and other relatives, that a child can be made the greatest little pest in the world, or he can be made a pleasure, and whichever theirs turns out to be depends upon themselves.

Strictly to the point here are a few words about precocious children and those who are underprivileged. Many exceptionally bright children are ruined by other ambitious parents. They are encouraged to learn and are shown off at every opportunity. As a consequence, they become insufferable "smart Alecks." If possible, these children should be held back, or at least allowed to develop naturally, without being pushed.

The underprivileged child, whether because of physical or mental defects or an unhappy home environment, requires especial care before the school age as well as in school, in order to prevent the development of an inferior complex. Schools and clinics are now recognizing this fact and are attempting to provide for these children the physical and mental training necessary for a normal existence.

In conclusion, I should like to emphasize the fact that the health of the child is the responsiblity, not of the health agencies, but of the family physician. He can fulfill this responsibility by outlining to the mother at her first visit in pregnancy the rules which she should follow to protect her own health and better insure delivery of a normal child, and, after delivery, by explaining to her how to carry out all measures necessary to safeguard the well being of her child and promote its normal growth and development, discussing at the same time the reasons for doing so. The physician who is conscientious in these practices will go far toward accomplishing the purpose of true pediatrics—that science which is devoted to the production of a better next generation.

References

1. Lange, Johannes: Crime and Destiny, New York, Charles Boni, 1930.
2. Newman, H. H.: The Biology of Twins, Chicago, Univ. of Chicago Press, 1917.
   Ibid: The Physiology of Twinning, Chicago, Univ. of Chicago Press, 1923.

Prevention of Mental Disease

DICK C. McCOOL, M.D.
MEMPHIS, TENN.

Preventive medicine is based upon the philosophy that "an ounce of prevention is worth a pound of cure." The failure of the early preventive measures naturally swung the pendulum into an era of therapy which has obtained to the present time. With the discovery of the specific vaccines and antitoxins the era of preventive medicine returned to a place of importance because of its practical application in specific instances. The best "treatment" for any disease is its prevention, and this idea has gone beyond the scope of biochemistry, embracing categories such as tuberculosis, cardio-vascular disease, and cancer, for which there is no vaccine or antitoxin. Of increasing importance from a preventive aspect is mental disease. It is the purpose of this paper to direct attention to mental aberration with special reference to its prevention and control. Like all other problems concerning health this one falls in the lap of every physician whether specialist or not, and represents a responsibility which cannot be denied. It is the physician who must supervise the principles of mental hygiene even though they are eventually carried out by parents, guardians, social agencies, or other welfare groups.

Mental disease from organic causes, i. e. those due to structural changes in the brain, such as brain syphilis, vascular degenerations, hemorrhage, inflammatory degenerations, brain tumors, and trauma are, so to speak, specific in etiology. Our interest at the moment is to be confined to those non-organic disorders which are not specific in etiology, but which constitute the great bulk of mental diseases. These include the emotional disorders, notably the dementia precox (schizophrenic) group, the affective disorders (manic depressive group), arrested mental development, psychopathic personalities, and the psychoneuroses. Three phases of this subject will be discussed, with the understanding that they are necessarily overlapping to some extent. Human development cannot be separated into distinct categorical entities, hence it must be thought of as a continuous process punctuated by important eras or phases which merit special consideration. First of all is the *prenatal* period which embraces both the heredity factor and the embryological development of the new individual. The second phase may be termed *natal* or *congenital* so as to imply factors incident to birth which have a bearing upon the subsequent mental status of the individual. The third phase, the *post-natal* period, is the most elaborate of the three embracing the entire life history and experience; it deals with childhood, with adolescence, with marriage, and with the period of involution. Such groupings are merely arbitrary for the purpose of discussion.

PRENATAL FACTORS

Prenatal factors should begin with heredity, because in the evolutionary process every new individual has an antecedent history which plays an important role in the life of that individual. All hereditary tendencies and characteristics are deleted in this paper save those which have direct reference to the mental diseases to be discussed. It may be rather dogmatically asserted that no mental disease, per se, is inherited. There is no obedience to the Mendelian Law, and no mathematical predictions are possible outside the law of chance. Rather is there a *tendency* which seems to be propagated, and which under given environmental conditions will eventuate in some form of mental disorder. Dr. Adolf Meyer, of Johns Hopkins, holds that environment is of far greater importance in the etiology of mental illness than is heredity, and psychiatrists in general concur in such illustrious opinion. Thus a *tendency* may be cultivated or successfully controlled by environmental factors. This is true even in botany, and needs no elaboration. But bear in mind the extreme importance of tendency. Thus, in an individual with unhealthy hereditary background, great care must be exercised in guiding the destiny of that individual through the vicissitudes of life. And upon the assumption that like *tendencies* serve to strengthen each other, couples whose hereditary background discloses similar trends in the direction of mental diseases should, from a standpoint of eugenics, be dissuaded from marriage to each other, and if married to each other, from having children.

Embryology as a prenatal factor merits much consideration. Any undue alteration in physiology of sufficient severity and duration in pregnancy will interfere materially with the proper development of the embryo. It may result in abortion, developmental anomalies, or in physically inferior individuals. The role of trauma, syphilis, and toxic factors in this respect none will dispute, but I may lay myself open to all sorts of remarks when I assert my belief that an unhealthy psychologi- embryo. Any obstetrician prefers a healthy, happy mental attitude in his patients who are pregnant; it is good insurance for the new individual. Trauma may be prevented in most instances; syphilis and toxemias may be successfully treated. And the psychological condition of the patient may be kept healthy if one takes the time and makes the effort. Caution in this period may do much toward the creation of a mentally healthy offspring.

Of practical as well as eugenic value is a consideration of two important factors: (1) The educational attainment of prospective parents with regard to training the child properly, and (2) the economic status, both present and probable, of prospective parents. Any couple deserves children if it is willing to seek advice upon the subject of proper child training, and if the couple has at present or in prospect sufficient economic security to support children adequately. I believe that the medical profession is the proper dispensary of knowledge of child training. While the subject is a special study in itself, yet the average physician should be able to direct the parents wisely in their undertaking or to direct them to someone who makes a deeper study of the subject. Certainly the economic situation should justify intentional pregnancy for it is morally the responsibility of the parents, not of society, to provide for their offspring. If couples cannot conform to these fundamental requisites, they should be taught a proper method of birth control. This is all in line with the contention that all couples contemplating marriage or children should consult their physician beforehand to determine their fitness for such responsibilities.

NATAL OR CONGENITAL FACTORS

Although the role of trauma is omitted in connection with the post-natal period it is justly included in the congenital phase. Neurosurgeons say that a majority of convulsive disorders occurring within the first six years of life are usually the result of birth trauma to the brain such as hemorrhage, tearing of the brain substance, etc., with the subsequent scar formation which produces the clinical symptoms. Arrested mental development is likewise in many instances due to birth trauma. Many of these cases tend toward mental illness in later years. The preventive measure is scientific obstetrics, correctly practiced. And in known or suspected instances of brain injury neurological consultation should be sought.

When sufficient oxygen is lacking, brain tissue degenerates rapidly. Delayed respiration, congenital atelectasis, or other interference with respiration after the placental blood supply has been severed, will contribute toward organic defects which will form fertile soil for mental disorders. Oxygen deficiency then becomes a very important factor, the treatment of which is obvious.

The factor of infections, chiefly congenital syphilis and gonorrheal ophthalmitis, is very important. Syphilis can be prevented by proper obstetrical supervision, as may ophthalmia neonatorum. Also both can be treated successfully if treated early and properly. Juvenile paresis and blindness are potent etiological factors in mental disease.

POST NATAL FACTORS

Birth having been successfully negotiated there comes into play the most powerful of etiological influences, namely environment. It will be discussed from four aspects: childhood, adolescence, marriage, and involution.

Childhood is the plastic period of life, and it is therefore the most important one. Proper training here would virtually abolish all but organic mental disorders. Each individual is created with certain instinctive desires which cannot be expressed in their native form, and which therefore demand certain control in the form of law (discipline) and of sublimation, which means changing or modifying an instinct or desire so as to make it socially acceptable—in other words, it is a sort of compromise. This is the very reason and basis for civilization. It means that control is needed in the form of child-training. From a state of Nirvana, or intra-uterine utopia, psychologically speaking, the child is born into a world where it must now breathe, eat, drink, and excrete for itself—its blissful peace has been terminated. In order to mature mentally the child must be taught loyalty to reality. It must be trained along two lines, namely, respect for the rights of self and respect for the rights of others. This should begin at birth with the institution of regular habits which should not be altered merely because the child voices objections. Likewise, parental emotion or inconvenience cannot justify the spoiling of an infant. To be effective discipline must be instituted at the beginning and continued throughout life. The spoiled child is a blight on civilization from the standpoint of its tendency toward anti-social mental states later on. If a child is taught to respect the rights of others even at the expense of the child's own wishes frequently, mental health is almost a certainty. But the child who is given its own way is due for a rude awakening in later years—and the awakening usually comes too late. If a child is properly guided there need be no insoluble conflict between desire and attainment, which is the very basis of so-called functional mental disease. In the instance of congenital deformities certain special precautions must be taken lest the child develop feelings of inferiority. Such children should be carefully studied by a physician for evaluation of such deformities and for suggestion as to management. This is highly important. As it is impossible to cover adequately the subject of child training, further elaboration must be left to the literature.

Adolescence is the most difficult and trying period of all, with the possible exception of the period of involution. More psychological trauma is perpetrated upon children at this time than they will perchance experience the remainder of their lives. The bases of nearly all psychological trauma in this period is sex ignorance and sex misinformation. Boys are taught nothing but the "evils and dire consequences of masturbation," and girls are kept in the dark as to the physiology of menstruacal state during pregnancy may definitely interfere with the normal development of the tion until it occurs, and usually thereafter as well. Such subjects are tabu and unmentionable in far too many instances. The advent of such sweeping physiological alterations, together with sexual maturation and sex-consciousness, tends to create a state of bewilderment under the most favorable of circumstances, hence it is easy for many insoluble conflicts to arise between sexual awareness and improper or neglected education along such lines. Sex is made to appear as an evil thing and even religious arguments are advanced to support such an attitude. To illustrate this point, I had a case of an adolescent boy who had received many lectures on the evils of masturbation both from the father and the mother—he was told that it was sinful, and that he should therefore refrain from such practice. This the boy tried to do and did so for a while, but he became nervous and restless and sleepless. Finally the need for a doctor dawned upon the parents when the boy was found at scout camp saying prayers to a totem-pole. The child said in effect that he was afraid because he was repudiating his religion in such worship. The symbolism here is rather obvious. The totem-pole was symbolic of the penis, and his worship of it was symbolic of his desire to masturbate. The religious conflict was of course undisguised. Another frequent case is that of a girl who is terror stricken at the appearance of menstruation. Usually such cases reveal the fact that no one had told the child that this would occur. One mother who plead guilty of such neglect said, "That is one thing I was taught never to discuss—and I can't talk to my daughter about it." Such emotional shock may prove disastrous.

Education and confidence are the answer in the successful negotiation of adolescence. Sex can be intelligently taught to any child at any age without misrepresentation if intelligence is available in the teacher. It is an unnecessary injustice to tell a child that the stork brings babies, because they soon learn differently and then think their parents are either ignorant or liars, or both—and worst of all they then think of sex as unspeakably wrong. Hence the plea is for formal sex education. If the parents cannot do this the doctor can and should. Making one's self a confidant of an adolescent likewise helps. But whatever is or is not done do not frighten a child about masturbation. This always denotes ignorance of the truth on the part of the advisor. Instead be sympathetic and patient and encouraging with the adolescent, and the reward will likely be a healthy, alert mind thereafter.

Another trying period of the post-natal life is encountered in marriage. Under ideal conditions marriage is a responsibility which demands a great deal of adjustment and readjustment. One who cannot effect an adjustment alone can scarcely be expected to effect one in marriage. All too frequently maladjusted individuals marry and break under effort of making it a success. Marriage to be successful in its eugenic significance must be founded upon sexual compatibility, the lack of which figures high in causes of divorce and of mental disabilities. Ignorance of the facts regarding the physiology and psychology of the sexual relationship is very, very common, even among those with varying degree of premarital experience. Fortunately, professional advice can correct many difficulties on this basis. It would be a fine thing if every couple were to be examined physically and psychologically before marriage is consummated. Other facts considered, successful marriage adds to mental stability, and statistics support this assertion.

The next pitfall is the period of involution which in a general way is the reverse of the puberty. It, likewise, is attended by sweeping glandular readjustment and vegetative nervous system instability. Parenthetically it may be added that surgical menopause in the female apparently does not preclude a subsequent involution syndrome involving other glands. Psychiatric experience both personal and otherwise supports this view. While females are far more susceptible to nervous and mental instability at the period, the male sex is not exempt. The usual nervous symptoms are well known. Preventive measures include early recognition, and institution of appropriate treatment, which varies to some extent among different physicians. It is only when the mental symptoms fail to respond properly that consultation is indicated. Naturally, the advent of a definite mental aberration demands special measures in most instances.

SUMMARY

It has been the purpose of this discussion to direct attention toward the more plausible etiological factors in the development of mental disorders, and toward the periods of life during which such etiologic factors operate more extensively. It is presupposed, and therefore understood, that health from a physiological standpoint must be maintained to the highest degree possible. In so far as it appeared advisable organic factors were omitted, not through a lack of importance, but rather because they are to some extent controllable and preventable. The concern has been essentially with the so-called functional or idiopathic disorders, for we believe that these constitute the great bulk of mental aberrations and that many of them can be prevented by a proper mental hygiene program. It is also my thesis that the physician should direct such preventive measures as outlined above. Given a normal birth proper training in early childhood becomes the most important period for the institution of mental hygiene. In direct proportion to the adequacy and efficiency of child training will there be an increasing number of mentally healthy adults. Likewise, if an individual is well prepared for life during childhood, there is less danger during the subsequent periods of physiological instability. It is essential that the medical profession institute and direct these principles of mental hygiene with the same unity of purpose that is characterizing the battle against cancer, for in this way only can we hope ever to attack mental disease successfully.

Summer Diarrhea*

A. G. LeROY, M.D.
BOONEVILLE, MISS.

In choosing this topic for discussion I am aware of the fact that it may seem a bit out of season now that the summer months when we find this condition most prevalent, have gone. I believe, however, we will be able to profit by a few minutes study and thought on this subject. No doubt we will have many cases of diarrhea in the summers to come as it seems we have found no method of prevention and no routine method of treatment has proven successful.

It is well known that generally speaking diarrhea is more common in the summer months and more prevalent in warm or tropical climates. Here in the Southern states we are troubled greatly each year as the weather becomes warm, with diarrhea, especially among children and infants. During the past summer I saw and treated more cases with diarrhea than with any other complaint. During the months of June, July and August at the Anderson Clinic we have record of treating about seventy-five cases and no doubt we prescribed to that many more who were getting treated at home and we did not see. With but few exceptions these cases were in infants and children. The prevalence in infants is due to a number of factors. The gastro-intestinal secretions of the infant differ in composition from those of older individuals. There is much less hydrochloric acid and less pepsin-rennin in the gastric juice. The infant's digestive system is well adapted to the use of human milk but when other foods are substituted the upper portion of the intestinal tract is likely to get irritated and cause a disturbance and resultant diarrhea. Marriott states that in past years intestinal diseases have accounted for about as many deaths among infants as all other causes combined. This, of course, includes many cases of under nourishment which frequently leads to diarrhea in infants. But let us turn our thoughts principally to those cases which occur rather suddenly and from no apparent cause during the hot weather. The typical case as I found it presents a history and physical signs and symptoms about as follows: The child about six months old is taken suddenly with high fever—temperature 103 to 105, vomiting, abdominal cramping, evidenced by crying and drawing of its body, and later frequent stools. The stools first are watery and green in appearance occurring ten to twenty times per twenty-four hours and soon much mucous appears and then streaking blood and later probably almost pure blood in appearance in the severe case. The patient is very fretful, has no desire for food other than the breast and frequently presents a sore mouth. Frequently teething is associated with this. Usually there are no other outstanding physical signs. The mother may give history of the child eating some vegetable or other food not usually to be expected in a baby's diet. However, the history frequently is negative as regards the taking of any food other than that prescribed by the family physician.

The treatment of such a case should be begun promptly without delay, as a day or two of proper treatment early in the course of diarrhea may be far more effective than a week or two of treatment later in a case neglected. First of all a careful search for any form of parenteral infection should be made, and of course, any such infection, if discovered, should be treated before improvement from the diarrhea is expected. As some one has put it—more information is often obtained from examining the ears of an infant suffering from diarrhea than from examining the stools.

The general principals of treatment for diarrhea may be outlined as follows:

1. Rest of the gastro-intestinal tract.
2. Giving of food adapted to the limited digestive capacity.

---

*Read before the Northeast Mississippi 13 County Medical Society at Aberdeen, Miss., Sept. 21, 1937.

3. Restoration and maintenance of the fluid balance.
4. Restoration and maintenance of the mineral balance.
5. Adjustment of the proper room temperature avoiding especially too high temperature.
6. Blood transfusions in severe cases.
7. Certain medication which is probably of less importance than most of the above points.

It is probably best if we see the case at the onset of the diarrhea to withhold food entirely for a few hours, dependent upon the severity of the condition, age of the infant, nutrition and reaction to starvation.

Following the starvation period the food given should be non-irritating, readily digestive, and a poor culture medium for bacteria. Buttermilk or skimmed milk is preferable to whole milk because of less fat content. Boiled, evaporated, dried or acidified milk is best because the curds found will be smaller and this is easier on the digestive tract. Dextri-Maltose is preferable to cane sugar as it is more readily absorbed and less easily fermented. Other foods allowed, especially to those cases which had previously been taking foods other than milk, are cereal broths, such as barley water, rice or oat meal strained and clear broth from chicken or beef. With this may be given toasted crackers and very dry toasted biscuit tops, a little very crisp bacon may be given after the acute stage. We allow brown ham (striped) gravy with the dry toast and crackers. This frequently is helpful when the patient's appetite needs stimulating. Tea also is given and the tannic acid is soothing to the irritated intestinal tract. The meat of a mellow apple scraped fine is given by some with good effect. It seems to have a medicinal effect more than a food value. The parenteral administration of glucose solution may be resorted to as a means of introducing extra food when the patient will not take food or rally.

Plenty of fluid to maintain normal water balance is necessary. Water by mouth may necessarily be limited because of persistent vomiting. Fluids may be given subcutaneously, intravenously or intra-peritoneally. Ten per cent glucose intravenously is frequently necessary to restore the blood balance in cases of acute anhydremia accompanying diarrhea. Normal saline or Ringer's solution are suitable in moderate cases of dehydration. In the severe cases Hartman's solution or Lactate—Ringer's or Locke—Ringer's are best. I seldom use intra-peritoneal injections, but if used saline solutions are best. Subcutaneously the solution will absorb and be used up very rapidly and I believe the peritoneal route may be dangerous.

One of the most important points in treating the case with diarrhea, I believe, is keeping the patient cool enough. This is frequently overlooked. I will admit my negligence in this matter. During the past summer I noticed almost immediate change as soon as a fan was put in the room. In this day of improvements and inventions with the coming of air-conditioning I believe we will have a great help in treating our diarrhea cases. Every hospital should have at least one room air conditioned so that such cases may be properly taken care of.

Medication is probably of minor importance in the treatment of non-specific or summer diarrhea. I always prescribe sufficient sedation or narcotic to keep patient resting as well as possible. Paregoric is an old stand-by and I think one of the best. Aspirin to control the very high fever is helpful. Small doses of codeine may be necessary and should be used without hesitation if needed to keep patient quite. Is is very important to prevent the usual fretfulness present, I think. For the frequent stools I give usually some preparation of bismuth, such as the creamocarbonate of Sharp and Dohme and give chloretone and bismuth powders of each grains fifteen, making 12 charts if vomiting is persistent. The preparation recently formulated named Kayo-pectate put up by Upjohn seems to be very helpful for the gastric irritation usually present. It is a compound containing pectine, an extract from green apples. In the cases where there is much mucous and blood present indicating colon irritation, we use tannic acid powders, drams one, dissolved in quart of warm water and used as a colon flush or retention enema. Strong tea serves the same purpose. This treatment coats over the irritated and ulcerated portion of the lower bowel and thus aids in healing.

In closing let me say I do not claim to be giving something new on treatment of diarrhea and probably every one present has a better idea about treating it but I wanted to bring up a subject which I believed would be of interest to every general practitioner in the South. A little thought on the subject and suggestions some of you may be able to give may be of benefit in the future.

Erythroblastosis, With Jaundice, Anemia, and Edema in the New-Born; Report of Case

CLYDE V. CROSWELL, M.D.
MEMPHIS, TENN.

A congenital disturbance of the hematopoietic system is regarded as responsible for that group of syndromes which in common are characterized by excessive erythroblastic activity in the fetal circulation. The blood picture shows hyperchromic anemia, with large numbers of immature and nucleated red cells, leukocytosis, and a high percentage of reticulocytes. Necropsy studies reveal multiple centers of hematopoiesis in the liver, spleen, and other extramedullary organs. Deposits of hemosiderin are also found in the liver and spleen. Enlargement of the spleen and, to a less extent, the liver, is observed almost without exception.

The erythroblastoses, which is the term by which these types of blood abnormalities are collectively known, seem to be induced by metabolic disturbance, and perhaps a consequent toxicity, which either inhibits the supply of proper blood building material and causes the persistence of a fetal type of blood, or else leads to proliferation of immature cells. In any event, these cells enter the circulation and are destroyed by hemolysis.

This disturbed metabolism may itself be dependent upon a toxic agent transmitted from the parent. When such a condition cannot be proved, however, the underlying cause of the disturbance is believed to be a primary defect in the fetus or an inherited developmental deficiency. The latter view seems a reasonable explanation of those cases which are known to be familial; it does not explain those in which the family history is negative. The inheritance theory is supported by the fact that the mothers of these children are almost always well advanced in the child-bearing age and, further, that the affected child is seldom the first born. From this, it is supposed that the defect may be due to an exhaustion of some maternal hormone necessary for stimulation of proper blood formation.

The syndromes in which erythroblastosis fetalis plays the major role are icterus gravis, anemia of the new-born, and hydrops fetalis, and it is upon the most outstanding of these that classification of each case is based. All have features in common, and in a few cases two or more of these major manifestations are so pronounced as to make differentiation difficult. The distinction can be made by the clinical picture following treatment, or by necropsy studies.

In icterus gravis, the jaundice comes from over-burdening of the liver cells with destroyed red cells and consequent impaired liver function. The crowding of the liver with hematopoietic foci, moreover, may cause pressure on the cells and interfere with function to such an extent as to lead to an obstructive as well as hemolytic jaundice. In this condition, as well as in hydrops fetalis, the placenta may be enlarged and the child may be encased in a yellow vernix. Edema of the hands and feet may also be observed. Jaundice is present from birth or appears soon thereafter, and increases rapidly. It may be so severe as to obscure the anemic pallor. As a rule, the mucous membranes are abnormally pale, although, in a few cases they are icteric. Bleeding and coagulation time may be slightly prolonged, the platelets normal or reduced. Petechial hemorrhafies are frequently noted. An enlarged heart is not uncommon. Difficult respiration, cyanosis, and drowsiness are other features of the clinical picture. A few of these infants are saved by early institution of proper treatment.

Anemia in the newborn results from failure of development of the red blood cells, or by their destruction, or by a combination of these two factors. The chief physical sign is pallor, although there may be some degree of jaundice, either at birth, or a few days thereafter. Petechial hemorrhages also are frequently observed. Anemia is more readily amenable to treatment than icterus gravis.

In hydrops fetalis, the edema may be explained by the fact that the immature nucleated cells are unable to carry a normal amount of oxygen. The anoxemia which follows causes damage to the cells of the capillaries and loss of fluid from the circulation. Decompensation of an hypertrophied heart may have some bearing upon this condition. The distinguishing features are an enlarged placenta, a thick yellow vernix caeosa, and a generalized edema of the infant. Not infrequently, a severe degree of jaundice is also present. A successful treatment for this syndrome is not known; the outcome is always fatal.

No satisfactory explanation of the bleeding tendency has been offered. Diamond, Blackfan and Baty suggest that increased phagocytosis of the erythrocytes by the reticulo-endothelial cells may also cause increased destruction of the platelets and lead to free bleeding(or that hypertrophy or hyperplasia of erythroblastic tissue in the bone marrow may crowd out the platelet forming megakaryocytes. The combination of lowered platelet level with destruction of liver substance and severe jaundice increases the tendency to hemorrhage. These theories, however, obviously do not hold good for those cases in which the platelets are normal.

A familial incidence is a rule, though not without exceptions, in icterus gravis, and in anemia and hydrops fetalis a family history of some type of blood dyscrasia is occasionally obtained. All writers on the subject have stressed these points.

The case reported here is interesting because of the fact that the condition could not in any way be attributed to a familial tendency, nor to any physical deficiency of the mother, since she was only twenty-two years of age and apparently normal and in good health. It is also noteworthy in that, although the syndrome perhaps resembles more closely that of icterus gravis, the edema was generalized and the blood picture was identical with that characteristic of congenital anemia of the new-born.

CASE REPORT

B. D., a girl, was the second child of normal parents. The mother's age was twenty-two years, the father's, thirty. The first child, aged three years, had been normal and healthy from birth. There was no familiar history of jaundice or other features of the syndromes of erythroblastosis. The mother had had no miscarriages, nor any known infection; the Wassermann reaction made during pregnancy had been negative. She had carried the present child to full term without complications, and delivery was uneventful. Since there was no indication to suspect any abnormality in the child, the placenta was not examined. I should like to say, parenthetically, that cases of this type illustrate the desirability of examination of every placenta by the obstetrician. The pediatrician might thus be warned of any alarming complication to follow.

The infant weighed seven pounds, five and one-half ounces at birth. Its condition was only fair; its color was pasty white with a yellow tinge, and its cry was weak. Shortly after birth there was a slight hemorrhage from the cord.

Twelve hours after birth, the infant's respiration grew faint, she became cyanotic, and purpuric spots were apparent over the body. The jaundice was markedly increased, the mucous membranes also being icteric. She was placed in an oxygen tent for three hours.

The writer was called to see the child at this time by Dr. W. T. Pride and Dr. J. M. Brockman.

On physical examination, the temperature was 100-3/5 degrees. The heart sounds were distinct far out to the left, but no murmur could be detected. The spleen was enlarged to twice normal size, and the liver was slightly enlarged. A roentgenogram of the chest showed atelectasis throughout the lungs, as well as an enlargement of the heart. The Van Bergh test gave a delayed biphasic reaction, indicating the hemoglobin type of jaundice. The blood count showed hemoglobin 47.5 per cent and erythrocytes 2,160,000. The bleeding time was five minutes, the coagulation time six minutes.

An intramuscular injection of 22 c.c. of whole blood was given at once, followed four hours later by an intravenous transfusion of 82 c.c. of whole blood. The infant's respiration was fairly good and her color improved after this treatment. Calcium gluconate by mouth every three hours was prescribed to control the bleeding defect.

On the second day, a generalized edema was apparent, though the swelling was more pronounced in the hands and feet. The jaundice was still marked. The temperature had returned to normal. The child vomited three times during the day. Calcium gluconate was continued.

By the third day the edema had increased but the jaundice was unchanged. The temperature rose to 100 degrees. The infant was put on breast milk. The stools became green in color. Only one dose of calcium gluconate was given. The blood cell count at this time was as follows: hemoglobin, 82.5 per cent; reticulocytes, 18.4 per cent; erythrocytes, 4,050,000; leukocytes, 22,500; platelets, 200,000; anisocytosis, poikilocytosis, polychromatophilia and granular degeneration were all marked; there were many macrocytes, and normoblasts numbered 57 per 100 white cells and megaloblasts 2 per 100 white cells; lymphocytes, 37 per cent; large mononuclears 1 per cent; and polynuclear neurophiles 66 per cent. The diagnosis was erythroblastosis fetalis with jaundice, anemia, and hydrops.

On the fourth and fifth days the child was conspiculously drowsy, but her condition remained otherwise the same. A formula was substituted for the breast milk. The stools became yellow.

On the sixth day there were several loose yellow stools, the edema began to subside, and the temperature returned to normal. The jaundice, however, was still severe and the purpura marked. A hematoma the size of a lemon appeared on the left leg; this was probably caused by the tourniquet during transfusion. The blood cell count showed hemoglobin 58 per cent and erythrocytes 2,950,000. A transfusion of 70 c.c. of whole blood was given.

The diarrhea continued throughout the seventh, eighth, and ninth days, and was accompanied by further reduction in edema and a marked loss of weight. The temperature continued normal. The blood on the eighth day contained 61.4 per cent hemoglobin and 3,440,000 erythrocytes. The jaundice had not diminished.

By the tenth day the diarrhea was less acute and the hydrops had almost entirely disappeared. The infant's weight was now six pounds, twelve ounces. Since she had retained nourishment well, it was believed that the weight loss was caused by the loss of water from the tissues through the stools. The blood cell count showed hemoglobin 73 per cent and erythrocytes 3,600,000.

On the eleventh day the child's temperature rose suddenly to 102-3/5 degrees and the diarrhea became worse, the stools being both yellow and green. A test for malaria was negative. The urine, however, showed a heavy trace of albumin, many coarse granular casts, 2 to 3 pus cells per high power field, and many bacteria. The rise in temperature was attributed to the bacteria, since no other explanation could be found. The chest seemed normal on auscultation. The skin looked a little less icteric, the edema had subsided completely, and the purpura and hematoma had practically disappeared.

On the morning of the twelfth day the temperature was again normal and the diarrhea much improved. The weight had fallen to six pounds, eight and one-half ounces. Another blood cell count showed 69.6 per cent hemoglobin and 3,450,000 erythrocytes. The spleen was still enlarged to two or three times normal size. Another transfusion, of 75 c.c. of whole blood, was given.

By the fifteenth day the diarrhea had subsided completely, the jaundice had decreased, the spleen was materially smaller, and the temperature was normal. The blood examination revealed 104.4 per cent hemoglobin and 5,050,000 erythrocytes. The infant weighed six pounds, fifteen ounces.

The spleen was further reduced by the seventeenth day, the jaundice had cleared perceptibly, the temperature had remained normal, the weight was seven pounds, two ounces, and the child's general condition was good. She was dismissed from the hospital.

When seen again, twelve days later, there was still a slight yellow tinge to the child's skin and the spleen was approximately one and one-half times normal size. The liver was apparently normal in size and contour. On auscultation, the chest was negative. The weight was seven pounds, nine ounces. The hemoglobin was 82.3 per cent, and the erythro-
ed to the early treatment by blood infusion
cytes numbered 4,150,000.

In presenting this case, attention is direct-
and transfusion, which is now the only method known to hold any promise of success in the erythroblastoses. The earlier the treatment, moreover, the more favorable the outcome. Replacement of the immature cells by this means permits better oxygenation of

the tissues; jaundice and edema then subside, hemorrhage is controlled, and the spleen, liver, and other organs return to normal. We feel that the prompt transfusions were responsible for saving the life of this infant.

BIBLIOGRAPHY

1. Diamond, L. K., Blackfan, K. D., and Baty, J. M.: Erythroblastosis Fetalis and its Association with Universay Edema of the Fetus, Ivterus Gravis Neonatorum and Anemia of the Newborn. J. Pediat., 1:269, 1932.
2. Monfort, J. A., and Brancato, G. J.: Erythroblastosis Neonatorum; Report of Nine Cases. Arch. Pedia., 52:431, 1935.
3. Yaguda, Asher: Erythroblastosis in the Newborn and in Early Childhood. Am. J. Clin. Path., 5:-266, 1935.

Arteriovenous Fistula*

T. K. CHANDLER, M.D.
WEST POINT, MISS.

Arteriovenous fistula may be defined as an abnormal communication between an artery and its adjacent vein. Altohugh conditions present in all arteriovenous fistulas are the same, my remarks in this paper will deal only with arteriovenous fistula of the extermities.

William Hunter in 1757 made the first accurate description of the clinical features of an amnormal communication between an artery and vein. He reported two cases, both occurring in the arm as a result of bleeding procedures during which the posterios wall of a vein and its underlying artery were injured. Although many cases were reported after Hunter, the first clean cut description of the important fundamentals involved in the treatment of arteriovenous fistula is found in a publication by Von Oppel in 1908. Since that time much progress has been made in formulating a successful operative treatment for this condition.

Arteriovenous fistula is very much like an arterial aneurysm, but there is one fundamental difference in both conditions that there is a diminution of the blood volume to the extremity supplied b ythe affected artery. The manifestations of arterial aneurysm come from pressure by or rupture of the aneurysmal sac or by mechanical obstruction of the blood flow. In arteriovenous fistula, the same condition is brought about by an abnormal distribution of the current of flowing blood. Therefore in arterial aneurysm the blood does not reach the part intended because of a mechanical obstruction. In arteriovenous fistula the blood does not reach the part intended because the blood is shunted or short-circuited through the fistula into the vein and back to the heart. The fundamental principles of treatment of these two conditions are therefore different. In arterial aneurysm the problem is the removal of the obstruction while in arteriovenous fistula the channel of the diverted stream must be closed.

The predisposing cause of arteriovenous fistula is trauma. The exact way in which this is brought about is not known. In the experimental laboratory, an artificial arteriovenous fistula is very hard to produce. In some cases large fistulas by vessel suture have been produced experimentally, but small fistulae established in this manner heal spontaneously or show regressive changes. On the other hand, a fistula between an artery and vein is apparently easily produced by accidental injury. Even a very small fistula produced in this way may remain patent for years. The abnormal communication between an artery and vein is always associated with certain abnormalities in circulation. We are concerned particularly with the heart and the tissues supplied by the affected vessel. Once established, the fistulous opening produces a leak in the affected artery and as a result the extremity distal to the fistula. It is there is a loss of the blood volume reaching easily seen that the blood can take one or both of two courses, either thru the fistula and back to the heart or continue in the artery distally. The blood finally reaching the extremity is dependent upon the size of the fistulous opening and the relative resistance of the capillary bed. Thus the larger the fistula, the more blood short-circuited directly back to the heart and the less the tissues in the extremities receive. We can easily see that if not enough blood reaches the extremity to maintain tissue life, gangrene of the extremity will result, that is, if the collateral circulation does not compensate for this blood loss.

It has been known for years that the presence of a large fistula, after persisting for some time causes an increase in the size of the heart associated with an increase in the size of the artery and vein in the near vicinity proximal to the fistula.

---

*Read before the Northeast Mississippi 13 County Medical Society at Aberdeen, Miss., Sept. 21, 1937.

In a series of animal experiment, Holman, after establishing fistulae that did not close spontaneously, observed that the heart underwent dilatation. In one experiment, Holman, after successfully establishing an arteriovenous fistula between the aorta and vena-cava removed the clamps under the fluroscope. Immediately the heart was seen to dilate. Closure of the proximal artery caused a decrease in the heart shadow, and closure of the proximal vein with the proximal artery open caused the heart shadow to decrease still more in size. From this experiment we deduce that the length of time that the fistula exists is of minor importance, and that dilatation occurred rapidly and was dependent upon the size of the fistula. Holman, also in his experiments, computed the total blood volume before and after an arteriovenous fistula had been established and he noticed that even after the fistula had existed for a comparative short time that there was an increase in the total blood volume. The lower pulse rate that will occur, as you may see from a report of two cases later in this paper, Holman reasoned, resulted from isolating the fistula from the general circulation and restoring the circulatory system to its original status with an added blood volume. The alteration in blood pressure and pulse rate was therefore a compensatory adjustment to accomodate this increased blood volume. The dilatation of the proximal artery and vein is caused by the steady force of blood directed toward the fistulous opening causing a gradual distention of the walls of the vessels. This distention increases until a joint is reached whereby the combined resistance of the fistulous opening, the resistance offered by the distensibility of vessel wall to further dilatation, and the normal capillary bed, are in a state of equilibrium. When this balance is reached, there will be no further dilatation or increase in blood volume.

Of course it can easily be seen that some collateral circulation is needed to insure the life of the extremity. It is very fortunate that very abundant collateral circulation is formed in these cases of arteriovenous fistula. In fact, in some cases the volume flow of blood through the tissues distal to the fistulous opening may be markedly increased even though the primary artery is completely occluded at the site of the fistula.

Of course operative treatment is the only way an arteriovenous fistula can be eradicated. The operative treatment of arteriovenous fistula therefore falls in two groups: those for the reduction of blood through the artery in the vicinity of the fistulous opening and those that prevent the flow of blood through the fistulous opening. Now there is a great difference in these two groups. The principal for treatment by the first group is the application of the ligature in continuity. This may be done in two ways. The first is known as the Hunterian operation. This consists of placing a ligature on the proximal artery more or less remote from the fistula. The other technic is the placing of ligatures in the immediate vicinity of the fistulous opening. This is sometimes spoken of as the Anel or Brasidor method. Both of these methods are to be condemned because of the reasons given below. In the Hunterian technic, after the primary artery is obstructed by a ligature applied proximal to the fistula, the only blood which can reach the fistula is by way of the collateral circulation. Since the distal end of the collateral circulation must communicate with the distal part of the primary artery which in turn communicates with the fistulous opening, it is evident that part of the blood flowing through the collateral arterial paths must pass through the fistula. Therefore, we see that we may get a diminution of blood volume to the extremity and gangrene may result. If the ligature has been placed very remote, even the collateral circulation may be shut off and gangrene would be certain to follow.

Ligation of the artery distally as well as proximally is also to be avoided because of the fact that immediate collateral branches may keep the fistula alive as in the Hunterian operation at the expense of distal parts.

Another method of treatment which was used frequently by surgeons during the late way was ligation of both artery and vein, proximally and distally. Although greater success than ever before was obtained by this procedure, success followed only when the fistula was completely isolated from the general circulation. If branches arising from the fistula bearing segment are not included in the ligatures, then these branches will subquently enlarge and keep the fistula alive by shunting the arterial blood into the vein through the fistulous opening.

In opposition to the above methods which tend only to decrease the volume flow of blood through the fistula, the more radical procedures have as their purpose the complete obliteration of the fistulous opening.

Although not the ideal operation, which will be explained later, but one which gives satisfactory results is the complete extirpation of the segment of the artery and vein containing the fistula. Here even the very small communicating branches to the fistulous sac are excised and the fistula is permanently removed. This seems a very radical procedure, but case reports in surgical literature prove this operation very successful.

The ideal operation is one in which the fistulous opening between the artery and vein is severed and the continuity of the vessels restored by vessel suture. It is not always possible to do this however, and when the condition arises, the fistulous opening may be reached by opening the vein opposite the fistula; the fistulous opening closed by suture and then the vein closed by suture. In connection with these two procedures, there have been case reports in which post operative embolism and thrombosis have occurred. This fact should be borne in mind especially if the vein is injured.

I wish now to present two case histories of arteriovenous fistulae of the extremity which were operated with good results. These cases occurred while I was resident physician in the Tennessee State Prison, and were operated with my assistance. I present these cases upon by Dr. J. C. Gardner, of Nashville, Tenn., to you with his consent:

Case 1-25812: A. S., a negro male, age 38, was admitted to the Tennessee State Prison Hospital in January 1935, complaining of swelling of the left leg, palpitation, shortness of breath on exertion, and pain in the affected extremity on walking. When about 20 years of age, he contracted syphilis for which he received two courses of intravenous treatment, otherwise his general health has been excellent. In October 1934, he was shot with a 38 caliber revolver. The bullet entered the left buttock, penetrated the upper part of the thigh and ultimately came to rest just beneath the skin of the antero-medial aspect of the left thigh about 4 inches below Pouparts ligament. Profuse bleeding from the wound. There was marked loss of blood and the patient became extremely short of breath and very weak. He was removed to the City Hospital in Memphis where he was treated and a constricting bandage applied. He stated that after the hemorrhage was arrested, the thigh became tense, markedly swollen and quite painful. As best he could recall, the day following receipt of his injury, he noticed a continous buzzing sensation in the upper anterior part of the thigh, which persisted and grew progressively worse as the swelling of the thigh decreased. He remained in the hospital four weeks and at the time of discharge, the swelling had partially subsided. The buzzing, whirring, sensation in the thigh persisted and was more noticeable and annoying following exertion. A short while after leaving the hospital he became short of breath on exertion and at the same time he noticed his heart beat rather forcibly. He continued in this state for two months, being totally incapacitated, and at the time of entrance to the Prison Hospital, he stated his condition was growing worse.

On examination, the patient was a well developed, muscular negro man, lying quietly in bed, apparently in no discomfort. The pulse rate was 118. The blood pressure in the left arm ranged around 130 systolic and 60 diastolic.

A striking feature was the difference in size of the two extremities, the swelling in the left thigh being diffuse and giving it the appearance of an actual increase in size rather than a localized swollen area. The left thigh was 5 cm. larger in circumference than the right and decidedly warmer than the right. This phenomenon the patient himself had noted but in comparing the two extremities, he spoke of the right thigh being colder than the left.

On the antero-medial surface of the thigh could be felt a continuous thrill, the point of greatest intensity being about 2 inches below Pouparts ligament, overlying the femoral artery. The thrill could be palpated over the artery to the groin, and downward to the lower level of the mid thigh region. On auscultation a very loud continuous bruit could be heard over the entire course of the femoral artery. No pulsating mass could be demonstrated. There was no edema of the extremity. A barely perceptible pulse could be felt in the dorsalis pedis artery and the pulsation could be made to disappear when firm pressure was made over the thigh causing the bruit to stop. Again, when the fistula was closed by digital compression, the systolic pressure immediately rose to 158 and then rapidly fell within about 45 seconds to 138 at which level it remained as long as the fistula was closed. Immediately after release of compression the systolic pressure dropped to 112 and gradually rose to 124. The diastolic pressure reacted in a similar manner, rising on closure of the fistula with a fall to a constant level slightly higher than that originally, followed by a decided drop on allowing the fistula to open, with a rapid return to its level.

The patient stated voluntarily on several occasions that when pressure was applied over the fistula, stopping the bruit, he became dizzy.

Due to the proximity of the fistula to Pouparts ligament it was impossible to control the blood supply by a tourniquet, hence at operation, an incision was made over the femoral artery about an inch below Pouparts ligament, the artery exposed and a small soft rubber catheter passed around the artery. Thus by gentle traction on the catheter the blood supply to the fistula from this source could be controlled. The original incision was then prolonged downward overlying the fistula and the dome of a false aneurysm exposed. Considerable difficulty was encountered at this stage of the procedure for the aneurysm was buried in a mass of dense scar tissue and the dissection which of necessity had to be cutting, severed a number of obscure vessels which resulted in a series of rather brisk hemorrhages.

The aneurysm after being freed from its lateral attachments was found to be connected by its base to both femoral artery and vein, these two vessels having an extensive common opening into the sac. Several large communicating branches were connected with the vein at its junction with the aneurysm and a large branch of the femoral artery was also separately connected with the lateral surface of the vein at the base of the aneurysm.

Another interesting feature was the enlargement of the proximal artery and vein in comparison with these velleges distally. The wall of the proximal artery felt decidedly thinner than that of the distal artery, which fact was borne out later when the vessel was cut across. Both artery and vein were temporarily occluded after severing and ligitating all visible communicating branches, but even this procedure did not control the blood supply to the fistula as the aneurysmal continued to refill after all visible sources of blood supply were controlled. The femoral artery was then ligated proximal to the large communicating branch and also below the aneurysm together with the segment of artery and the greater portion of the anterior and lateral walls of the vein removed. At this stage of the operation there was a copious hemorrhage which resulted from a posterior communicating branch or branches which had not been exposed in the dissection. Efforts to control the hemorrhage by suture were unsuccessful and consequently, two clamps were left in place in the region—immediately posterior to the femoral vein at the site of the fistula. The wound was partially closed, the clamps being allowed to protrude at the lower angle of the wound. The clamps were removed in 60 hours, a small superficial drain inserted and the wound edges approximated. Healing was complete in about 12 days without infection. Eight hours after operation a pulse of good volume, tho not as strong as the pulse in the unaffected extremity, could be felt in the dorsalis artery. This persisted for 4 days after which the pulsation became weaker.

At the time of my last observation the thigh was normal in size, the blood pressure was 120 78 and the pulse rate had dropped to 66. The patient has been active since discharge from the hospital but complains of pain on motion in the posterior region of the hip joint, which I attribute to injury in this region from the bullet, and not as a consequence of vessel injuries.

Case 2-26679. Q. B., a negro male, age 26, was admitted to the State Prison Hospital, the latter part of April 1935 complaining of a "tickling" sensation in the left thigh. In February 1935 he was shot with a 38 caliber revolver. The bullet entered antero-medial aspect of the mid-thigh region and emerged at the same level posteriorly. The patient stated he was drunk at the time and recalls only that blood spurted from the wound of entrance. He was treated at the Nashville General Hospital where he remained nine days at the end of which time he was discharged, the wounds having healed entirely. As best he could recall, a few days after discharge from the hospital he first noticed a continuous buzzing sensation in the left thigh, which persisted until the time of his entrance to the

Prison Hospital. There were no symptoms suggestive of progressive changes of the fistula.

On examination the pulse rate was 82. The two extremities were equal in size and there was no perceptible difference in surface temperature of the two extremities. When the examining hand was placed on the thigh overlying the scar of the bullet entry a continuous thrill could be felt. On auscultation a loud bruit could be heard, the area of greatest intensity being in the region of the scar. On closing the fistula by compression, the pulse rate dropped from 82 to 69. The blood pressure before compression was 112/68 but immediately after compression rose slightly, the systolic rising to 120, the diastolic to 70. Upon the release of compression allowing the fistula to reopen the blood pressure fell to its original level.

At operation an incision was made overlying Hunter's canal and the fistula exposed. The long saphenous nerve was incorporated in the scar tissue which united the femoral artery and vein and in freeing this nerve, the fistulous channel was opened. The artery and vein were ligated both proximally and distally, a small arterial communicating branch ligated and severed and the intervening segment containing the fistula extirpated. The patient made an uneventful recovery.

In conclusion, successful operative results can be accomplished only when the fistulous connection is obliterated and any method of operative treatment which seems only to decrease the blood flow through the fistula will result disastrously.

BOOK REVIEW

The C. V. Mosby Company is doing a very useful service in publishing a series of synopsis of specialties. Authorities on each specialty are consulted, and the author presents the subject tersely, and as simple as possible.

Synopsis of Genitourinary Diseases, by Austin I. Dodson, M.D., F.A.C.S., Professor of Genitourinary Surgery at the Medical College of Virginia, is a second edition, with changes and additions to include recent advances in the treatment. The essential facts are so well presented that they are easily grasped. Indications for cystoscopy and other specialized methods in diagnosis and treatment are clearly defined. The most prominent signs and symptoms are summarized; instruments needed in general practice are described; the anatomy of the genitourinary described and illustrated; anomalies are taken up in one chapter; and remainder of the book is given over to thoroughly condensed etiologies.

The author suggests that the book is very handy for the student. It should be quite as useful to the busy general practitioner who has little time to spend in voluminous reading. We recommend **Synopsis of Genitourinary Diseases** for reference in general practice.

Price $3:00. C. V. Mosby Company. .

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor and Mgr.
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Postgraduate Medical Assembly

Mid-South Post Graduate Medical Assembly
Editors:

E. M. Holder, M.D. — C. R. Crutchfield, M.D.
C. M. Speck, M.D. — H. King Wade, M.D.
F. M. Acree, M.D. — Dewell Gann, Jr., M.D.

Mississippi State Medical Association

W. L. Little .... President
Joe E. Green .... President-Elect

Editors:

Leon S. Lippincott, M.D. — D. W. Jones, M.D.
G. S. Bryan, M.D.

Councilors

J. W. Lucas, M.D. — Willie H. Watson, M.D.
L. L. Minor, M.D. — H. Lowry Rush, M.D.
R. B. Caldwell, M.D. — J. Gould Gardner, M.D.
Thomas J. Brown, M.D. — W. H. Frizell, M.D.
D. J. Williams, M. D.

Published monthly at Booneville, Mississippi.

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act

Dr. Harvey F. Garrison, Sr., of Jackson, has been asked to preside over the meeting of presidents at the Southern Medical Association at its meeting in New Orleans. It was at his suggestion while he was president of the Mississippi State meeting that this organization was perfected. It was certainly a very constructive idea. The meeting of the presidents—and might we suggest the ex-presidents, from the date of the organization—certainly has a great potential value for good. In a meeting of this type medical problems can be freely discussed as at no other we think. It would be well also to add the editors of the Southern States to this group. Of course, the editors could have a meeting of their own, but the presidents and the editors need to work so closely together that such an association would be of mutual benefit. We think. Dr. Garrison has rendered a great service in this unique idea. You cannot separate medical practice from medical problems. State presidents and the editors of the journals should greatly benefit the profession by discussing these problems together.

The per capita distribution of funds for the indigent sick in Mississippi was a great step forward for the unfortunate sufferers and also for the cause of organized medicine. This has brought hospital service to within a few miles of the indigent sick of our state. The hospital, although it does not pay the entire cost, is a benefit to the average small hospital, as it would be duty bound to care for much of this urgent sickness any way. The small hospital creates a medical center. This has made it possible to have post-graduate courses throughout the state. It is a great step forward to bring the latest and most reliable information in the field of medicine to the busy practitioner, and in turn a great service for the sick in the small town and rural community. The small hospital should help to solve the problem of appendicitis by securing an early diagnosis and an early operation. As a state we believe that Mississippi through its small hospitals, public health service, and post-graduate courses is setting the pace for medical service to the masses for the world. But we are really just in the beginning. We have the problem of tuberculosis which is becoming more and more a surgical disease. Many small hospitals need a few rooms connected for these patients, where the simpler surgical procedures may be administered. This will call for some increase in our per capita allowance from the state. We do not have the service we need for the crippled of the state nor for the indigent needing radium and deep x-ray therapy. We should have a central hospital well-equipped to be used more or less as a clearing house for the more complicated case, and for the cripples, and as an aid to a good internship for our state. Now is the time to talk to your legislator about these problems. Talk to him and explain fully what it all means.

The North Mississippi Medical Society held its last quarterly meeting at Ole Miss. The program was furnished by the faculty of the medical school and it was a good one. Many visitors were present including president W. L. Little, of Wesson, and T. M. Dye, of Clarksdale. Dr. P. W. Rowland was one of the enthusiastic spirits at the meeting. He loves the Ole Miss Medical school like a brother. He is doing fine work for it and securing a better library. The great and scholarly Dr. Rowland is looking to the future, he has a vision for the school and he is doing things to make this vision come true. Send him some books for the medical library.

The December meeting of the Northeast Mississippi 13-County Medical Society will be held in Tupelo. Drs. Irvin Abel, of Louisville, and Dr. Alton Ochsner, of New Orleans, are expected to participate on the program. It will be a big meeting.

We regret that we could not attend the last meeting of the Coahoma Medical Society at Clarksdale, the little New York of Mississippi, the home of our efficient state secretary and their popular mayor, Dr. Tom Dye.

The postgraduate course being given under the direction of Tulane, the Commonwealth Fund, the state medical and state hospital associations are very fine. Drs. deLaureal and Van Studdiford are doing the work in splendid style. They know the subject and are most courteous and obliging.

Remember the Graduate Medical Instruction given by Tulane University November 22-27. A wonderful course of five days' instruction. On Friday, November the 26th, the master surgeon, Dr. Rudolph Matas, is on the program. It will be a great treat to hear him.

We will all be delighted to see our own Dr. W. A. Evans on his return from Africa. It is always good to sit at his feet and listen.

The per capita distribution of funds for the indigent sick was a great step forward for rural medicine. Let us go forward with this plan.

It is only the self-righteous medical pharisee who never made a mistake.

Cordial congratulations to Dr. Felix J. Underwood on his selection as trustee of the Rockefeller Foundation. No better selection could have been made.

The program for the Mid-South in Memphis in February bids fair to be the greatest meeting in the history of this great assembly.

Look at Houston stepping out to the front with this big program put on by the University of Tennessee.

Send your spare medical books to Dr. P. W. Rowland to be placed in the medical library at Ole Miss.

A trained nurse for every practitioner is a good slogan. She can help him to find "acres of diamonds" in the old dirty office, make it nice and inviting. She can help him to increase his income, bring him more and better practice. She can educate the people to appreciate more the service of the practitioner. A good history and a thorough examination are always of the greatest importance. Women die of cancer too often because the doctor does not look and see. He does not look and see because he does not have a nice table and a nurse to fix the patient for examination oftentimes. Much surgery can be prevented in the future by better obstetrics in the present, by repairing the small laceration at the time of delivery. What a help the trained nurse can be to the country obstetrician. The nurse can help the practitioner to furnish his service in more palatable form, cause his clientele to like it, pay for it and not to desire state medicine.

We are in the beginning of a new era in the practice of medicine. The general practitioner is in doubt about the security of his future. He is confronted by an increase in the cost of practice, by a reduction of incomes for the masses, by specialization, hospitalization, hospital insurance and a threat of state medicine. The demands from the public are greater. The technical knowledge of the practitioner can not be as thorough on all subjects as that of the specialist on one. But he yet has many advantages in his favor. He knows his patient in his relations to his environment better than the specialist as a rule. He also knows more of his heredity, his psychological reactions, his social and economical problems. Really and truly he yet has a place in the medical sun if he can confine a bit more definitely his work and can be remunerated to some degree in keeping with the service he is giving. For real service under the new order he should be the most valuable man in any profession. The specialist and the general practitioner should work hand in hand to the advantage of each and for the good of all the people. The new order should bring the general practitioner honor and success more abundantly.

To hundreds of doctors in the Southern Medical Association New Orleans is at once identified with their Alma Mater—Tulane or L. S. U. Then the charm of America's most individual city beckons with kindly invitation. Its ancient land-marks, colored with many a tale of the past; its delicious foods combining all the piquancy of Old World culinary art; its retention to a concise degree of the French, the Spanish and the Old South influences which constitute the heart of its charm; its bright spots which caused it to be called "The City Care Forgot"; its modern business section, the busy port—all these become a part of every doctor's visit, as much perhaps as his attendance at the scientific programs.

In charge of the Committee on Arrangements is Dr. Lucien A. LeDoux. He is Professor of Gynecology at the L. S. U. Post-Graduate Medical School. Besides an outstanding record in his own field, Dr. LeDoux possesses just the executive finesse to handle the arrangements for the Association in expert style. At his right hand is Dr. Emmett L. Irwin, the vice-chairman.

Dr. Irwin is a man of extraordinary talents and has not been idle in applying them in his chosen specialty. He formerly occupied the chair of Professor of Surgery at L. S. U. Post-Graduate Medical School. Some time ago his ability was recognized by the Orleans Parish Medical Society when he served as its president. He is a member of the American College of Surgeons.

The program for the meeting is splendid. Much of the best talent of the nation has been solicited in preparing the program. The task has been nobly performed by our Chairman of Programs and Clinics, Dr. Frederick L. Fenno. He is a former president of the Orleans Parish Medical Society, Former Assistant Professor of Psychiatry and Neurology at Tulane, and at present is Professor of Psychiatry at L. S. U. Post-Graduate Medical School.

The Dean of L. S. U. Post-Graduate Medical School, Dr. James T. Nix, will give the address of welcome in behalf of the Orleans Parish Medical Society. Dr. Nix is Professor of Surgery at L. S. U. Post-Graduate Medical School. His understanding, his keen insight and judgment, his ideals of learning for a noble profession have won the esteem of colleagues and the trust of a growing medical center. His affableness, his ease and his sincerity have also made him very popular. He is one of the L. S. U. "Big Four."

Not since the tragic results of the use of Jamaica ginger as a beverage or rather as a stimulant, has there been such a furore as has been raised over the taking of "Elixir of Sulfanilimide." At the time of this writing there seems to have been some thirty-five or more deaths charged against this product of the Massengill Company. No one seems to be able to account for these deaths in a scientific way. No one, in my thinking, may be held criminally liable for these unfortunate deaths. Yet a most deplorable situation has developed and an embarassing one to the medical profession as well. "Honor to whom honor is due" is a time honored and worthy slogan. But it is just as necessary and right that responsibility should be assumed and borne by those deserving it. This being true the question, naturally, arises who is responsible for this catastrophic situation? Of a certainty the manufacturers of this mixture of chemicals cannot escape responsibility. But are they, wholly, to blame? Are the doctors who prescribed or advised the use of the mixture entirely blameless? Is it not true that doctors are too willing to take cues from the representatives of houses that are making drugs and drug mixtures? Again may it not be true that too many doctors know but little about the real physiological action of drugs and care but little more than they know? May it not be true that the practice of medicine is becoming so commercialized that doctors are thinking more of the commercial than the scientific side? Again, may it not be true that doctors are placing too much confidence in drugs of all kinds and in consequence are giving too much medicine? If this is true, and I think it is, are we not responsible for the tendency of the public to place more confidence in medicine than in the doctors who prescribe it? After several decades spent in the study and practice of medicine, I have seen theories come and go—I have seen drugs (new drugs) brought out and heralded as specifics for this and that disease and then I have seen them discarded and forgotten. So when sulfanilimide was brought to the front it looked as if it might become the only needed drug. It was announced and received with entirely too much favor and fervor. It was given to a president's son by men who stand high in medical favor. This fact was proclaimed from the house tops. The young man recovered. Thousands of other young men had been treated for the same ailment and had recovered even though no sulfanilimide had been given them. When it was offered as a specific for gonorrhea the public or a large per cent of it passed it down the line as a godsend. Counter prescribing and self medication became universal or nearly so. Much more might be said along these lines, but I deem it unnecessary. But I hope and believe this fearful situation and tragic demonstration will, in the end, prove a splendid lesson to both laymen and physicians to say nothing of the counter prescribing druggists. This brings me to say that when doctors come to think more about their patients than about their diseases—when they study psychology more than they do materia medica, I think they will become better therapeutists and will deserve and hold the confidence of the clientele better. But please do not think I am trying to teach that this new drug may not have merit and should not, ultimately, be given a place in our amamentarium. I am simply urging caution in its use and advising that we wait until the pendulum has found a resting point. Remember it is, at present, in the experimental stage. Let those who are equipped, do the experimenting. Personally I have used it in a few cases, but very cautiously. I have seen no good results but have seen some unpleasant reactions. I have and shall keep an open mind, but I have, for some time, maintained an attitude of "watchful waiting." Few of us can be leaders in the field of medicine. Only another few can keep close up with the leaders. But all of us can be cautious, conscientious and thoughtful doctors. In this way, alone, can we gain and deserve the respect of our patients, our confreres and ourselves.

G. S. B.

OLE MISS REINSTATED AS MEDICAL COLLEGE

The Ole Miss Medical School was reinstated to full membership in the Association of Medical Colleges at the annual convention in San Francisco, Chancellor A. B. Butts was advised here today.

A telegram from Dr. B. S. Guyton, dean of the Medical School, to the chancellor, who was here attending a memorial service for Justice W. H. Cook of the Supreme Court, contained the notice of the association's action .

In 1930 after the Bilbo college shakeup, the medical school, with the rest of the university, was dropped from membership in the various accrediting associations.

In 1932, the medical school was placed on probation and after legislative financial aid and modernization of equipment, full reinstatement was granted.

Ole Miss offers a two-year pre-medical course.—The Commercial Appeal.

The medical profession of Mississippi will be delighted to read this news. This two-year course has stood the test of time in its thoroughness. It offers a fine opportunity to our young men of limited means, but with a professional mind, a medical soul and a missionary heart. Honor and praise to Dr. B. S. Guyton for his noble part in this service. Let us join hands with him and his able faculty and make this department more efficient and more secure.

THE TULANE UNIVERSITY OF LOUISIANA
SCHOOL OF MEDICINE

Department of Graduate Studies

Review Courses:

Medicine; Surgery; Gynecology
and Obstetrics:
January 3 through February 12, 1938
February 14 through March 26, 1938

For program and further information write:

Director of Graduate Studies

1430 Tulane Avenue New Orleans, La.

President Southern Medical Association

FRANK KELLS BOLAND
Atlanta, Georgia

Medical history and literature will refer to the newly elected President of the Southern Medical Association as Dr. Frank Kells Boland, of Atlanta. His father was Dr. Kells Hewitt Boland, who was born in Canada and his mother, Louise Bright Boland, a native of Ohio. He was born in Indianapolis on May 3, 1875, and moved to Atlanta at the age of four months, where his father practiced medicine for many years.

Frank Boland attended the Crew Street School in Atlanta, the Boys' High School, and the University of Georgia, from which he was graduated with the degree of Bachelor of Arts in 1897. To call him Frank is natural and easy, and one realizes in him the greatest gentleman of the generation. He was president of his class and made many a young heart warm during his college days with the magic rhythm of the violin which he loved and played well but gave up when he began to study medicine. After completing his course at the University, he entered the Atlanta College of Physicians and Surgeons, now Emory University School of Medicine, and was graduated in 1900. He was a classmate of Dr. Stewart R. Roberts, of Atlanta, former President of the Southern Medical Association. After graduating he did postgraduate work at Johns Hopkins under Osler and the distinguished group of that time. He was intern and late resident in surgery at St. Joseph's Hospital until 1903, when he returned to Atlanta to practice.

In 1905 he married Molly Leila Horsley, of West Point, Georgia, daughter of a physician and she has been a constant inspiration and help to him through the years. They have two sons now practicing medicine, who, like their father, were famous football players at the University of Georgia, and who followed their father's footsteps into Phi Beta Kappa and Chi Phi. In 1926 the University of Georgia bestowed upon Dr. Boland the degree of Doctor of Science.

The new President has missed few meetings of the Southern Medical Association in twenty years. He has been president of his county and state medical societies, of the Chattahoochee Valley Medical Association, the Southeastern Surgical Congress, and the Southern Surgical Association. He served the Southern Medical Association as General Chairman for the Atlanta meeting in 1926, Chairman of the Council. He is a fellow of the American College of Surgeons, the American Surgical Association and the American Association for Thoracic Surgery, and has been Vice-Chairman of the Section on General Surgery of the American Medical Association. He has made many valuable contributions to the Southern Medical Association Journal and to other scientific publications. He has taught anatomy and surgery in Emory University School of Medicine since he entered the practice of medicine in 1903; from 1921 to 1930 was Professor of Surgery; and since 1930 has been Professor of Clinical Surgery.

During the War he was Lieutenant-Colonel in the Medical Corps and went overseas with the American Expeditionary Force. He was Chief of the surgical service at Base Hospital 43, in Blois, France, the Emory University Unit. At present he holds a commission as Colonel in the Medical Reserve Corps, U. S. Army.

Dr. Boland is President of the Crawford W. Long Memorial Association, and was largely instrumental in placing Dr. Long's statue in Statuary Hall in the National Capitol as one of Georgia's most illustrious sons.—Southern Medical Journal.

SECRETARY, SOUTHERN MEDICAL ASS'N.

MR. C. P. LORANZ

Mr. C. P. Loranz of Birmingham, Secretary of the Southern Medical Association. Mr. Loranz gives a most interesting account of his twenty-five years with the Association. He is efficient, he has the ability to keep on keeping on, and he is a most courtly Christian gentleman. The Association owes much to him and his helpful workers in Birmingham, especially Dr. Seale Harris and Dr. Dabney and his accomplished wife. Read what Mr. Loranz has to say.

TWENTY-FIVE YEARS

When I left the office last night I had completed twenty-five years of service with the Southern Medical Association. On October 7, 1912 I became associated with Dr. Seale Harris in the work of the Southern Medical Association and the Southern Medical Journal, being employed by Dr. Harris to assist him in the work. The Southern Medical Journal, the official organ of the Southern Medical Association, was then privately owned by a small group of physicians. I carried the title of Business Manager of both the Southern Medical Association and the Southern Medical Journal.

At the annual meeting of the Association in November 1921 Dr. Seale Harris resigned as Secretary and Treasurer of the Southern Medical Association and Editor of the Southern Medical Journal due to the press of his private business. At that meeting I was elected Secretary, Treasurer and Business Manager, to carry the title of Secretary-Manager, and Dr. M. Y. Dabney, then Associate Editor of the Journal, was elected Editor. A few years later in revising the Constitution and By-Laws, the Association provided for the office of General Manager and I then became Secretary, Treasurer and General Manager, continuing to carry the title of Secretary-Manager. So for some years I have served the Association as its Executive Officer in the triple capacity of Secretary, Treasurer and General Manager.

I have seen the membership of the Association grow from a few hundred to a few thousand. I have seen the attendance of physicians at the annual meetings grow from less than three hundred to more than three thousand at the last annual meeting. I have seen the scientific activities of the Association increase from four sections and no clinical sessions to eighteen sections and several clinical sessions, all with programs unsurpassed in scientific excellence by any medical organization. I have seen the scietific exhibits grow from none to a hundred and eight at our last meeting. I have seen the technical exhibits, sometimes called the commercial exhibits, a necessary source of income in financing the Association, increase from a half dozen to a hundred and fourteen at the last annual meeting, using a hundred and fifty-two exhibit spaces.

When I began my service with the Southern Medical Association there were a relatively few influential physicians active in the organization in comparison wit hthe large number today, and as is always the case with a new organization, the expenses were greater than the revenue. But for the faith and vision of Dr. Seale Harris and a few other loyal influence and made available through loans friends who gave liberally of their time and their personal funds, we would not have been able to weather that early critical period. I have seen the Association weather other critical periods, notably the World War, when hundreds of our members were in service, and the more recent depression.

At the same meeting in 1921 when I became Executive Officer, the Association acquired by purchase the Southern Medical Journal, assuming a large obligation to be paid in ten annual installments. I have seen that debt paid and the Association build up a fair liquid reserve (U. S. Government Bonds) and carry a creditable daily bank balance. I believe at the close of the next annual meeting we will be able to add further to our reserve and then truly be able to feel that the Association has gained economic security.

I have seen the Association progress from a comparatively obscure organization with a few loyal followers to an organization nationally and internationally known and respected, and with a host of loyal followers. I have seen its Journal, the Southern Medical Journal, progress from a fairly obscure publication to one that is recognized nationally and internationally as one of the best in a group of worth while medical publications.

The Southern Medical Association would not have the place it has today had it not been for the interest, loyal cooperation and fine leadership given it by the physicians in the South. I could have accomplished nothing during these years without that interest, loyal cooperation and fine leadership. All that I am willing to say for myself is that over the years I have tried to be faithful, to be fair and just, and I have been conscientious.

Twenty-five yong years, and yet as I view them in retrospect they do not seem so long for I can hardly realize that twenty-five years ago this morning I cast my lot with the Association. There have been days of hard work and long hours, particularly in the early years, and there have been many discouragements. But all in all they have been twenty-five happy years. I can now say that I have enjoyed and do enjoy my work.

I have always felt that the work I am trying to do is worth while, that the Southern Medical Association is a worthwhile organization with a mission to perform in and for the South. It has always been my intention to make my work count for something in the advancement of organized medicine in the South.

As I begin today on a new year of service, starting the first day of the twenty-sixth year, I pledge anew to the Southern Medical Association the best there is in me. It is my purpose always to give my best. I shall continue to try to be fair and just, impartial and conscientious. I covet the confidence, the esteem and the approbation of those whom I am privileged to serve, the physicians in the South as represented by the membership of the Southern Medical Association.

C. P. Loranz,
Birmingham, Ala., October 7, 1937.

THE BIG FOUR OF TULANE

DR. C. C. BASS

DR. H. W. KOSTMAYER

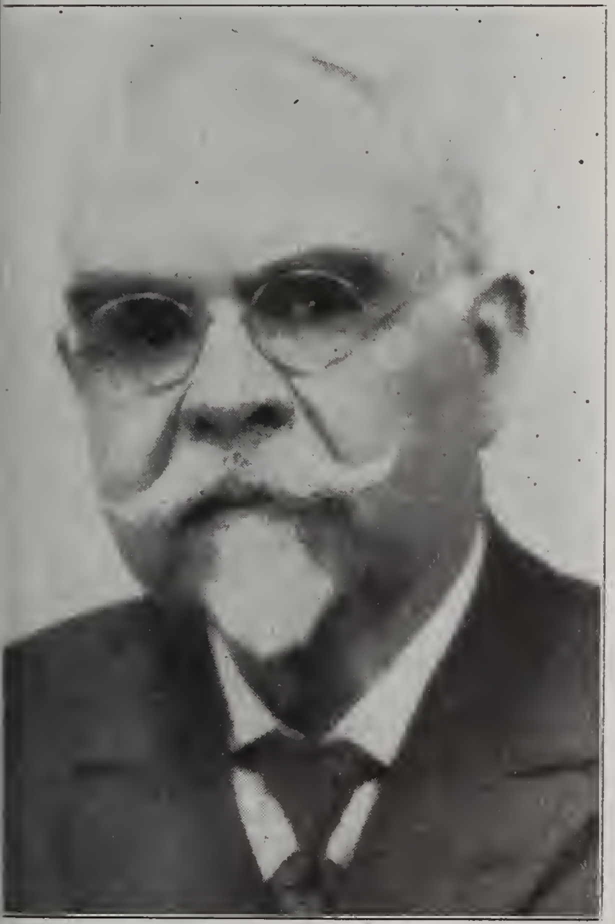
The cosmopolitan city of New Orleans is one of the outstanding medical centers of the United States. Hundreds of doctors in the Southern Medical Association love the name, Tulane, and all doctors everywhere respect it. Louisiana State University has now established one of the best equipped medical schools to be found anywhere and it is forging to the front. This medical center is distinguished for many men of national reputation. Dr. C. C. Bass is Dean of the Medical School of Tulane. He is a native Mississippian widely known for

DR. A. J. OCHSNER

DR. J. H. MUSSER

his research work in malaria and experimental medicine. Dr. Kostmayer, a native son, is director of the post-graduate studies. He possesses a fine personality, is well-poised and versatile. Dr. Alton Ochsner, Professor of Surgery of Tulane, is a national figure in the art and practice of surgery. He is a relative of the world-known Dr. A. J. Ochsner, of Chicago. Dr. Musser, Professor of Medicine, hailed from the city of brotherly love just a few years ago. He is able in knowledge in the field of medicine and is alert to the social and economical problems confronting the profession.

DR. RUDOLPH MATAS



Dr. Rudolph Matas, of New Orleans, Dean of the medical world. He is the master with a miraculous storehouse of accurate information fortified with surgical wisdom and reinforced with professional integrity. It will be great to hear a few words from his versatile tongue. New Orleans is charged and will be for years to come with the mental electrons from his medical soul and generous heart.

DR. O. W. BETHEA

Dr. Bethea is one man that Mississippians will rejoice to greet in New Orleans at the Southern Medical. He is a native of South Carolina, but he rushed over into Mississippi at an early age, worked in a drug store, took a course in pharmacy in Atlanta and later helped to organize the old Mississippi Medical College where he was professor of pharmacology and chemistry. In 1911 he graduated from Tulane in Medicine. For about twenty years he has been professor of clinical medicine in Tulane, and for about fifteen years professor of therapeutics in the graduate school, is chief of medicine in the Southern Baptist Hospital and is senior visiting physician at the great Charity Hospital. His work is confined to internal medicine.

Dr. Bethea is a member of the Parish, State, and Southern Medical Societies; a Fellow of the A. M. A., College of Physicians and The Chemical Society (Great Britian); Past President of the American Therapeutic Society; a member of the American Heart Asssociation, and numerous other medical, scientific and honorary groups.

In 1915 Dr. Bethea published his book of *Materia Medica,* the fifth edition of which is now coming from the press. In 1928 he published his *Clinical Medicine,* now in process of revision.

He has published over a hundred medical

papers including much original work, such as new instruments, original diagnostic measures and improvements in treatment.

Aside from medicine his interests are limited. He is a member of the famous old Pickwick Club, belongs to the various Masonic bodies including the Shrine and is an elder in the Presbyterian Church.

Dr. Bethea is a great teacher. In his teaching no one small point is overlooked. He not only knows his medicine, but he teaches the men the practical side of actual practice and the importance of knowing the man as well as the pill. It will be good to see him at the Southern.

DR. ISIDORE COHN

Dr. Isidore Cohn who recently succeeded Dr. Rudolph Matas as chief surgeon of Touro Infirmary upon the latter's retirement, has been appointed Professor of Surgery and Associate Director of the Department of Surgery in the newly organized graduate school of L. S. U. School of Medicine. He is especially known throughout the United States for his work in bone surgery. You will see him at the Southern Medical.

MISSISSIPPI'S PRESIDENTS OF THE SOUTHERN MEDICAL ASSOCIATION

DR. WALTER W. CRAWFORD

B.S., M.D., F.A.C.S., Lt. Col. MC., U. S. Army, World War

Dr. Crawford is known to every doctor in Mississippi who is really active in organized medicine. The State Association owes him much, and so does the Southern. He meets every medical issue squarely and decides on its merits in the way that he thinks proper for the good of sound medical ethics. For organized medicine he has given of his time liberallyfi likewise he has kept abreast of the advances in his field of general surgery.

Graduated in medicine at Jefferson Medical College in 1898.

Senior resident surgeon Polyclinic Hospital, New York, 1901, organized and has been Chief Surgeon of South Mississippi Infirmary since 1905.

President Mississippi State Medical Association 1906-07.

President Mississippi State Board of Health 1925-30.

Collaborating with Dr. H. H. Martin, Savannah, Ga., and Jesse L. Crook, Jackson, Tenn. wrote Constitution and By-Laws and participated in organization of Southern Medical Association at Chattanooga, in 1906.

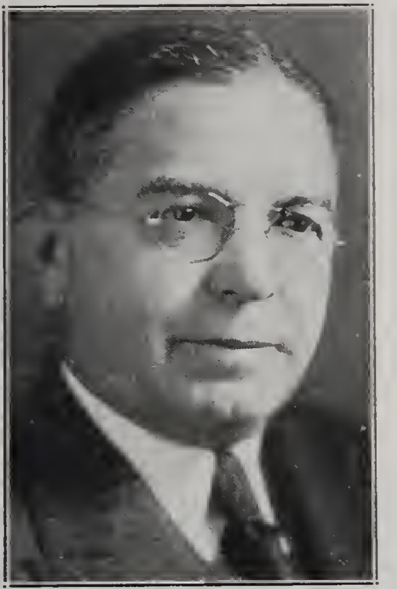
Was elected fourth president of S. M. A. at its New Orleans meeting in 1909 and presided at the Nashville meeting in 1910.

A life member and perhaps the only member who attended the organization meeting in Chattanooga and has not missed a meeting since that date.

Member American College of Surgeons.

Chief Surgeon to Base Hospital and later Chief Surgeon to Base Hospital 79 A. E. F. Rank Lt. Colonel.

DR. W. S. LEATHERS



Dr. W. S. Leathers, Dean of the School of Medicine of Vanderbilt. He was the second man to serve as president of the Southern Medical Association from Mississippi. Dr. Leathers is known and loved throughout the State of Mississippi for his good works in this state. He organized the Medical School of the University of Mississippi and served as executive officer of the State Board of Health of Mississippi. In this capacity he served from 1910 to 1924. He then obtained a scholarship from the Rockefeller Foundation and traveled in Europe for one year. He is serving as dean and also as Professor of Preventive Medicine and Public Health in the Vanderbilt Medical School.

Dr. Leathers is a member of the National Board of Medical Examiners; chairman of the committee on Professional Education of the American Public Health Association, a member of the Board of Medical Specialties, on the Board of Scientific Directors of the International Health Division of the Rockefeller Foundation, and a national councilor of the Alpha Omega Alpha Medical Society. He has served as president of the Southern Medical Association and held many other honors of importance in organized medicine. Mississippi will always feel a pride in his successes. He is a systematic student, a man of fine poise, diplomatic in manner and able in administration. It would be hard to find a job too big for him.

DR. FELIX J. UNDERWOOD

Dr. Felix J. Underwood, of Jackson, Mississippi, who is the immediate past-president of the Southern Medical Association. He is a native of Mississippi. He was graduated in medicine from the University of Tennessee in 1908 and then did general practice and part-time health work for a number of years in Monroe County, Mississippi. As secretary of the Northeast Mississippi 13-County Medical Society he rendered fine service for thirteen years. For many years he served on the council of the Mississippi State Medical Association, and in 1919 was awarded its highest honor, that of president. He has served on the council of the Southern Medical Association and as its president in 1930-31. He is now a member of the Board of Trustees of the Southern Medical Association. One of the last outstanding honors to come to him is his recent selection as a member of the board of trustees of the Rockefeller Foundation. It would take several pages to list the honors and the places of trust he has held and is holding in organized medicine. In 1924 he succeeded Dr. W. S. Leathers as executive secretary of the Mississippi State Board of Health, and in this capacity he has distinguished himself not only in his own state but throughout the entire nation. He is indeed and in truth a great executive. He knows public health work and the relation it should bear to the practitioner. He is a man of great vision in his chosen field and he has the practical application to make it come true. He was heartily endorsed for the post of Surgeon General by the Mid-South. In the field of administration public health and preventive medicine, there is no place so big that Felix J. Underwood could fill it with distinction.

DR. HARVEY F. GARRISON, SR.

Dr. Harvey F. Garrison, Sr., Jackson, Miss., Counselor of the Southern Medical Association, who will preside over the president's convention at New Orleans.

DR. LUTHER McDOUGAL LOCATES IN TEXAS

Dr. Luther McDougal Jr., of Booneville, has just located in Paris, Texas, for the practice of pediatrics and obstetrics. He is the son of Dr. and Mrs. L. L. McDougal, of Booneville. He graduated from Vanderbilt and has just finished four and one-half years internship in the East, two and one-half years of which was given largely to pediatrics. But few young men in the South begin practice so well equipped. Paris, Texas, is a city of twenty-four thousand, and even so but few cities of this size have a man with so much training in pediatrics. It looks good to us to see a man of this training locating in the smaller cities. It marks a new day in medical service for the masses.

DR. DAVID E. GUYTON

Dr. David E. Guyton, Professor of History, Blue Mountain College, the official poet of *The Mississippi Doctor* who composed the following for this special issue.

ON TO NEW ORLEANS

I am off for the Crescent City
Where the Medicos shall meet.
I shall thrill to the skill of her surgeons.
I shall march down each magical street.

I shall hie to her hospital centres,
Shall crowd every clinic I can;
But save me a seat where they drink and eat—
I'm a Creole gumbo fan.

Here's health for her nurses and doctors.
Here's a hand for her glamour and grace.
God bless the French Quarter and every dear daughter
That gladdens her glorious race.

To the Paris of Dixie, temptatious and trixie,
Where conventions abound at their best,
I am off with a scamper, with nothing to hamper,
All keen for romance, like the rest.

I'm thirsting for knowledge from clinic and college,
To learn every trick of the trade.

Back home I shall carry, as fleet as a fairy,
The soul of the speeches men made.

And from their revealing, I'll find surer healing
For those who shall summon my skill.
All over the nation, this great convocation
Will come with its cures for the ill.

Those days in December, I long shall remember,
And bless old Bienville once more.
The lure of the Latin is still in the satin
And silk of this Fleur-de-lis shore.

So, I'm keen for the big convention.
The cream of the craft will be there
And a trip to the Crescent City
Is a climb up the golden stair.

David E. Guyton

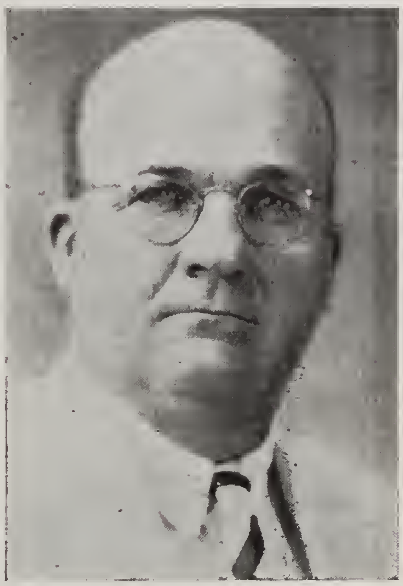
Blue Mountain, Miss.

Written for *The Mississippi Doctor* by request of the editor.

DR. R. M. ADAMS

Dr. R. M. Adams, of Ripley, who was elected president of the North Mississippi Medical Society at its last quarterly meeting at Oxford on October 20th. He is also president-elect of the Mid-South Postgraduate Medical Assembly. Dr. Adams is a most able and versatile practitioner. He gives special attention to obstetrics. Dr. Adams is always active in organized medicine.

DR. SAM TERRELL McILWAIN



The above is a likeness of Dr. Sam Terrell McIlwain, Batesville, Mississippi. He was born September 3, 1884, at Waynesboro, Wayne County, Mississippi, graduated in medicine in 1910 and has done intensive postgraduate work at Tulane University School of Medicine. Dr. McIlwain practiced medicine in 1910 to 1911 at Denham, Wayne County, Mississippi; then, from 1912 to 1916 at Sandersville, Jones County, Mississippi. At present Dr. McIlwain is associated with his son, Dr. Albert Jefferson McIlwain at Batesville. He has three fine sons: Albert Jefferson, Sam David, and Willard Lee. The oldest son, Dr. Albert Jefferson McIlwain, is a graduate of the University of Tennessee School of Medicine and he and his father have a splendid practice in Batesville. Sam David is a graduate of the University of Mississippi and has a prominent connection with the District of Columbia. The youngest son, Willard Lee, is also a former student of the University of Mississippi and a graduate of Cumberland Law School and also has a splendid position with the District of Columbia. The Batesville medical center is known as McIlwain's Clinic and this clinic is enjoying a fine practice and serving the community well.

Dr. McIlwain's fine wife was before her marriage, Miss Nollie Beechman of Sulligent, Alabama.

Mississippi feels proud of this family, whose average in citizenship is very high.

NORTH MISSISSIPPI COMMUNITY HOSPITAL

Tupelo's new hospital. We all rejoice with her in the enjoyment of this three hundred thousand dollar modernly equipped hospital. We shall all see it at our December meeting.

The opening of the North Mississippi Community Hospital at Tupelo, Mississippi, on October 3, gives the northeastern part of this state a modern, fireproof, well-equipped 50-bed hospital held in trust for the public, open to all qualified physicians and designed to serve the sick without discrimination.

This is the eighth such hospital to be built with the aid of the Commonwealth Fund of New York, which is now undertaking to provide one new hospital each year for a predominantly rural community which will agree to meet its share of costs and to run the institution in accordance with generally accepted standards. The ninth in the group is now under construction at Ada, Oklahoma, and the tenth has been awarded to the community centering in Provo, Utah.

The Fund began this project in 1926 as an experiment in meeting the need of rural communities for better medical and other health services. It was known that adequate hospital facilities were lacking in many rural districts, that recent graduates from medical schools were not entering rural practice in proportion to local needs, and that in spite of substantial progress in some parts of the country, health services in rural areas were not so well developed as those usually found in cities. It was assumed that the presence of well-planned and well-conducted hospitals would to some degree correct this situation, and experience in half a dozen different states indicates that the hope was justified.

The present plan is to aid in establishing hospitals having a capacity of between 25 and 50 beds and easily accessible to a rural community having a population large enough to make good use of such accommodations and capable of meeting operating costs. The hospital may either be a totally new institution, or may replace existing facilities which are clearly inadequate. The Fund furnishes plans, specifications, and architectural supervision for the construction, and not less than $200,000 as a contribution toward capital costs. It advises in the organization of the hospital corporation and the medical staff, offers assistance in meeting the administrative problems of the early years and provides a number of fellowships for postgraduate study by members of the medical staff.

Communities needing a 50-bed hospital are required to raise from $40,000 to $60,000 for their share of the capital cost and must provide in addition a site (with service connections) and from $10,000 to $15,000 to meet the deficit of the first year's operation. Ownership and administrative responsibility are lodged in a local corporation, organized not for profit, which contracts with the Fund to operate the hospital in agreement with specified standards. These standards are such as to guarantee its integrity as a community institution and to justify its approval by the American College of Surgeons.

Hospitals founded under this program are now operating in Murfreesboro, Tennessee; Farmville, Virginia; Glasgow, Kentucky; Farmington, Maine; Wauseon, Ohio; Beloit, Kansas; and Kingsport, Tennessee.

MISSISSIPPI STATE BOARD OF HEALTH FLOAT WINS SECOND PLACE

The above float of the Mississippi State Board of Health won second place in the Education Day Parade, October 15, at the Mississippi State Fair in Jackson, Mississippi. The beautiful silver trophy in the inset was awarded in token of the distinction accorded The directorof its able head, Dr. Felix J. Underwood.

— PROGRAM —

HOUSTON HOSPITAL STAFF
Presented by
THE FACULTY OF THE MEDICAL DEPARTMENT UNIVERSITY OF TENNESSEE
Masonic Temple
Houston, Mississippi
Friday, November 19th, 1937
11:00 A. M. — 10:00 P. M.

All doctors are cordially invited to attend this very interesting meeting.

FRIDAY MORNING—Nov. 19th, 1937
Presiding: Dr. Z. A. Dorsey, Troy
Invocation: Rev. W. W. Stewart, Houston

11:00-11:30 a. m. "Eye Examinations — Its Importance." Dr. P. M. Lewis, Department of Ophthalmology.

11:30-12:00 m. "Foreign Bodies in the Air and Food Passages." Dr. C. K. Lewis, Department of Otolaryngology.

ROUND TABLE DISCUSSIONS AND LUNCHEON
12:15-1:45 p. m.

1. EYE, EAR, NOSE and TROAT Chairman of the table: Dr. G .G. Armstrong, Houston.

A. "Gonorrheal Ophthalmia, Its Prevention and Treatment." 10 minutes. Dr. P. M. Lewis, Department of Ophthalmology.

B. "Suppuration of Middle Ear." 10 minutes. Dr. C. K .Lewis, Department of Otolaryngology.

2. OBSTETRICS AND GENITO-URINARY DISEASES. Chairman of the table: Dr. E. B. Young, Vardaman.

A. "Thoughts on Hypertrophied Prostate." 10 minutes. Dr. I. G. Duncan, Department of Urology.

B. "Alkalosis and Acidosis in Pregnancy." 10 minutes. Dr. J. R. Reinberger, Department of Obstetrics.

3. PEDIATRICS AND MEDICINE. Chairman of the table: Dr. F. L. McGahey, Calhoun City.

A. "Importance of Upper Respiratory Infection from the Standpoint of the General Practitioner and the Pediatrician." 10 minutes. Dr. J. J. Hobson, Department of Pediatrics.

B. "Diuretics in Heart Failure." 10 minutes. Dr. R. L. Motley, Department of Medicine.

4. SURGERY AND ORTHOPEDICS. Chairman of the table: Dr. V. B. Philpot, Houston.

A. "Treatment of Colles Fracture." 15 minutes. Dr. J. S. Speed, Department of Orthopedics.

B. "Present Status on Treatment of Empyema." 10 minutes. Dr. J. W. Bodley, Department of Surgery.

AFTERNOON SESSION

First Quarter

Presiding: Dr. W. H. Curry, Eupora

2:00-2:30 p. m.—"Care of an Obstetrical Case"—Dr. J. R. Reinberger, Department of Obstetrics.

2:30-3:00 p. m. "Schlerosis of the Coronary Arteries."—Dr. R. L. Motley, Department of Medicine

.3:00-3:30 p. m. "Urinary Trace Infection."—Dr. I. G. Duncan, Department of Urology.

3:30-4:00 p. m. "Appendicitis."—Dr. J. W. Bodley, Department of Surgery.

Intermission

4:00-4:30 p. m.

Second Quarter

Presiding: Dr. J. James, Ackerman

4:30-5:00 p. m. "Differential Diagnosis of Jaundice."—Dr. W. T. Dinsmore, Department of Medicine.

5:00-5:30 p. m. "Tumors of the Breast"—Dr. J. H. Francis, Department of Surgery.

5:30-6:00 p. m. "Neurasthenia."—Dr. C. C. Turner, Department of Neurology.

BANQUET

6:15-7:45 p. m.

Honoring Faculty of University of Tennessee

Presiding: Dr. W. C. Walker, Houlka

NIGHT SESSION

Presiding: Dr. E. L. Richardson, Louisville

8:00-8:45 p. m. "Transmmerlization and High Pottassium Diet."—Dr. J. B. McElroy,, Department of Medicine.

8:45-9:15 p. m. "Fractures About the Ankle."—Dr. J. S. Speed, Department of Orthopedics.

9:15-9:45 p. m. "Pneumonia."—Dr. H. B. Gotten, Department of Medicine.

9:45-10:15 p. m. "Care of the Normal Child from Birth until School Age with Consideration of those Factors Affecting its Growth and Development."—Dr. J. J. Hobson, Department of Pediatrics.

Luncheon and the banquet will be served to all physicians by Houston Chapter Order of the Eastern Star the price of which will be 50c for the luncheon and 65c for the banquet.

During the afternoon intermission from 4:00 to 4:30 the Houston High School Band (50 pieces) and the pep squad of fifty girls will give concert and drill in front of the Masonic Temple in honor of all doctors present.

* * * * *

Musical entertainment for the banquet will be furnished by Miss Purdon, Directress of Violin Department, Blue Mountain College, and quartette from vocal department of that institution.

BOOK REVIEW

Fractures, Dislocations and Sprains, by John Albert Key, B.S., M.D., St. Louis, Mo., and H. Earle Conwell, M.D., F.A.C.S., Birmingham, Ala., is out in its second edition, more replete and fully up-to-date, inclusive of additional methods of diagnosing and treating fractures that have found approval the past five years.

The book is written for the general practitioner quite as much as for the student and the surgeon. The authors are of the opinion that fracture cases can be handled satisfactorily by the practitioner except in occurences which warrant the aid of a specialist. With this viewpoint in mind complications and conditions that permit deformities are clearly described in detail with every necessary illustration. "The general practitioner should continually bear in mind that complicated fractures in the same region may tax the skill of the most experienced surgeon." The methods of treatment set forth are those used by other surgeons with marked success.

Automobile and industrial accidents give a new and increased importance to fractures, and no practitioner feels secure without constant attention to the advances in this emergency field. And possibly no better book on the management of fractures can be procured. The first part deals generally with the principles and aspects involved, the second part takes up the diagnosis and treatment of specific injuries from the skull through the entire skeletal system.

Published by C. V. Mosby Company, Price $12.50.

FOR SALE CHEAP

Bedsteads, Bedside Tables, Wheel Chairs, Bath Tubs, Commodes, Lavatories, Sinks, Operating room Equipment and many other articles. Most everything in good shape. Some slightly injured by fire. Apply to

J. W. MOODY, M.D.
Parchman, Miss.

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASSOCIATION

PLAN TO ENTERTAIN WIVES OF DOCTORS

The Gulfport Medical Auxiliary resumed its work October 20 after a recess of the summer months, meeting in the home of Mrs. A. C. Hewes, East Beach, with Mrs. M. M. Snelling acting as co-hostess. A brief business session was held dealing with old business that had arisen during the summer, and a few new plans were laid for the incoming year. However, most of the meeting was concerned with plans to entertain the wives of the Coast Clinic Medical Association which is to be held on the Coast November 3-4. Those present were Dr. Emma Gay, Mesdames Joe Evans, A. C. Hewes, C. E. Parker, H. K. Rouse, Jr., Chas. A. McWilliams, Cummings McCall, D. J. Williams, George Melvin, M. M. Snelling, W. E. Murphy and guest, Mrs. Willa Files. The business session adjourned into a social hour during which the hostesses served refreshments.

DR AND MRS. BOSWELL ENTERTAIN

The home of Dr. and Mrs. H. P. Boswell was the scene of a very delightful party Friday evening, when Mrs. Boswell, Mrs. Homer Porter, Mrs. Frank Wilbanks, Miss Sarah Griffin, Mrs.Van Russell, Mrs. Wyatt Hill, Miss Lulu Carr, and Mrs. Ben Taylor, Jr., Teachers in the primary department of the Baptist Sunday School, entertained in honor of Miss Green who is secretary in this department.

Sixteen friends were complimented Saturday afternoon when Mrs. H. P. Boswell entertained with one of the loveliest parties of the week.

ENTERTAIN AT TEA

The Gulfport Medical Auxiliary to the Harrison-Stone-Hancock Counties Medical Society are entertaining this afternoon at an automobile ride and tea honoring the women who are in attendance at the Gulf Coast Clinical Society convention at Biloxi. The route of the ride is from Biloxi to Pass Christian, and on the return the cars stop at the Gulfport Yacht Club, scene of the tea. The main salon of the club with its open fireplace was used as the reception room. Mrs. A. C. Hewes, president of the hostess organization, and Mrs. B. Z. Welch, Biloxi, received the guests. Presiding at the tea table were Mrs. Daniel J. Williams and Mrs. H. K. Rouse, Jr. The Gulfport Skipperettes catered for the tea and four of the younger Skipperettes, Misses Gene Hopkins, Marjorie Hopkins, Eleanor Hatten and Caryl Broom, served as tea girls. The table was decorated in the yachting motif with boats on a mirror, white candles, and pink radiance roses arranged in the Isaac T. Rhea trophy. Roses decorated the rest of the room also. Sandwiches bore decorations of anchors and steering wheels.

NORTH MISSISSIPPI AUXILIARY

Dr. Felix Underwood, of Jackson, Director of the State Board of Health was a New Albany visitor early in the week. He was an over night guest in the home of Dr. and Mrs. S. E. Eason.

Dr. and Mrs. S. E. Eason had as guests last week-end Mrs. Eason's sister, Mrs. Lelia Karr, of Coldwater, and Mrs. Aubrey Reed of Jackson, Tenn.

Mrs. Bernard Beidenharn, of Monroe, La., is here for a visit with her parents, Dr. and Mrs. Eason.

Dr. H. N. Mayes, of New Albany, is still in New Orleans with Mrs. Mayes.

Dr. S. H. Liddell is greatly improved by his visit in Hot Springs and will return home very soon to resume his practice.

FOUR-COUNTY AUXILIARY TO ENTERTAIN

The fourth quarterly meeting of the Thirteen-County Medical Auxiliary will meet again this year in Tupelo. The Four-County Auxiliary, composed of Lee, Prentiss, Pontotoc and Itawamba Counties met November 10 in Tupelo to make plans for the luncheon to be given at the country club. Mrs. C. C. Hightower, of Hattiesburg, state president, will be the guest of honor. The luncheon will be held at one o'clock, December 14. The following committee are working on preparations: Mrs. A. J. Stacy, Mrs. W. H. Eason, and Mrs. Carl Feemster, of Tupelo. The program committee are: Mrs. G. L. Brown, Mrs. H. J. Kellum and Mrs. W. R. Hunt.

The nominating committee appointed to select the 1938 officers for the Thirteen-County Auxiliary are: Mrs. R. B. Caldwell, Baldwyn; Mrs. Bernard Patrick, Corinth; and Mrs. W. H. Anderson, Booneville.

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

The Surgical Treatment of Phthisis Pulmonalis*

W. H. SUTHERLAND, M.D.
BOONEVILLE, MISS.

The subject of my paper was known as far back as Hippocrates and even before that. The father of medicine knew and described tuberculosis giving a long list of clinical symptoms and physical findings, among them being the general make-up—tall, slender, pale, wan individuals with curved backs and round shoulders, stringy necks, thin shrunken chests, bright eyes, hectic cheeks and a hacking cough. These physical findings and symptoms fit even to-day the neglected, long standing tuberculous patients who are far advanced.

Up to a few decades ago the diagnosis was not made, as a rule, until this stage was reached and it then did not require a medical man to make the diagnosis, but most any member of the laity could, and did, make it. Notwithstanding the modern means of diagnosis, in the last quarter century it is claimed by good authority that less than one-fifth of those who enter sanatoria for the treatment of tuberculosis are in the beginning stage; while more than four-fifths are suffering from advanced disease, recovery from which is uncertain or costly or both. Quotation from Lawrason Brown: "The most important factor in diagnosis in the majority of cases of pulmonary tuberculosis is keeping the disease in mind."

There are four leading danger signals of pulmonary tuberculosis that should be constantly kept in mind: first, constant fatigue; second, unexplainable loss of weight; third, a persistent cough; and fourth, any chronic form of indigestion. Let us remember that if any one of these danger signals is present there may have already been much damage done to the lungs, and modern means should be used to detect the cause of the symptoms, proving or disproving the presence of tuberlosis.

It is true that many diseases make their first appearance by constant fatigue, two of which are anemia and diabetes. It is also true that we often find a mild secondary anemia with pulmonary tuberculosis just as we find some diabetics with tuberculosis and sometimes both. Also, loss of weight might not of itself mean anything out of the ordinary, but, in that case, should be easily explained.

When a child or young adult shows lack of interest in playing and working with his associates, and with this constant fatigue and a gradual loss of weight, with or without mild anemia, presistent cough or fever, a thorough search should be made for the cause. There is often a manifestation of mild chronic lung trouble in the form of mild chronic indigestion and this one symptom is enphasized by some more than either of the other three. Especially is this the case in adults.

Another important factor not to be overlooked is to search in the history always for a point of contact with another open tuberculous case. It is claimed by many that this one thing often is a positive factor in confirming a diagnosis. In a large per cent of suspicious new cases, if we search diligently, we can find an open case with which the new case has been associated, probably unknowingly.

Above are some of the outstanding symptoms of so-called incipient tuberculosis. Now we come to some of the signs which are further advanced. A productive cough, not accounted for, which lasts as long as three to five weeks certainly should be investigated. Spitting blood which apparently is from the bronchial tree, if accompanied by cough or fever or both, should at once command the attention of the physician, and last, a positive sputum cinches the diagnosis.

---

*Read before the Section on Surgery at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 12, 1937.

Many people have been diagnosed as tuberculous unjustly. Just because one has a chronic productive cough is no certain proof that he has tuberculosis for such a case could easily be bronchiectasis or putrid lung abscess. Also many mistakes are made because of cough with fever and hemoptysis for we know, as a rule, that a productive cough of three to five weeks duration, especially if accompanied by fever and hemoptysis, means pulmonary tuberculosis.

About a year ago I was confronted with just such a case as spoken of above. This patient gave a history of having had influenza about five or six weeks previously and the cough appeared to linger and really become worse and even distressing. With this cough she had temperature ranging from normal to 104 degrees F. After remaining quietly in the hospital for a week the cough and fever both subsided completely.

The physical findings in her case were just about what we usually find in tuberculosis. The x-ray findings, however, showed only two or three small areas in the first and second interspaces on the right, anteriorly, and less on the left. The sputum was negative. She went back to her room after the cough and fever subsided, but after about three days she began to spit blood and this practically confirmed the strong suspicion that I had had in her case. She was brought back to the hospital and again, after running a temperature from normal to 104 degrees F., coughing and spitting up blood, the symptoms all practically disappeared. Her sputum was again negative . She was sent to the State Tuberculosis Sanatorium where, after several weeks of examination, she was given a diagnosis of carcinoma of the lung.

This kind of mistake is bad enough, but to dump a case off as tuberculous just because there happens to be a very productive cough which proves later, possibly after several years, to be bronchiectasis, is really tragic for the patient. Every case that presents itself for examination is entitled to a very thorough, well taken history paying close attention to all the minor details and taking plenty of time to correlate all the symptoms with the physical, x-ray and laboratory findings before summing up the results and coming to a final conclusion.

It is not sufficient merely to make a diagnosis of tuberculosis in a suspicious case, but in addition, one should be able to tell whether the disease is bilateral or unilateral, active or quiet, exudative or fibrotic, incipient or advanced, and, if advanced, to what extent; if cavities be present, the location especially as to whether in the apices or bases, near the pleural margin or near the center of the lung, the size of the cavities and if thick walled or thin walled; also if there be a pleurisy, whether it be dry or with effusion. The age of the patient also plays an active part, especially as to treatment, for as a rule the young are responsive to some form of collapse, while those over fifty or sixty are less so.

In order to treat intelligently any diseases the underlying cause should first be determined. The first one to suggest surgery in the treatment of tuberculosis was Carson in 1820. He was followed by Forlanini about 1889 and by Murphy in about 1898. These men were followed by chest surgeons of the World War. Progress was very gradual for ten years but since then rapid strides have been made and are continuing each month. Up to a decade or two ago the treatment remained as it had been for many years, rest in bed, fresh air and good food.

Public health authorities state that the mortality of tuberculosis has dropped during the last thirty-six years from 200 in 100,000 to 60 in 100,000.

Fishberg states that the lungs contract and expand 30,000 times in twenty-four hours during ordinary living conditions. This is greatly increased during work and exercise and is greatly diminished during rest and sleep. If it were possible to immobilize absolutely the affected lung as a tuberculous bone or joint is immobilized, only a few months, probably, would be necessary for an arrested cure. One can easily see the effect of rest in bed for even a month on the general condition of the tuberculous patient. The fever subsides, the appetite increases, the cough greatly diminishes, expectoration is less and the general aspect of the patient rises probably ten per cent in that month. If partial rest of the affected lung is capable of accomplishing this much in a month, then it is reasonable that much nearer complete rest could accomplish much more.

When we have a fracture of a bone we at

once immobilize the limb in one way or another. We do the same thing with any dislocation of any joint or any inflammatory condition. Nature first begins with pain in the affected bone or joint or inflamed part and with contraction of the adjacent muscles splinting, as it were, until some other help comes to its relief. In the acute abdomen nature first causes contraction of the abdominal muscles and with this a protective fluid is poured out between the visceral and parietal membranes which, besides acting as a coffer dam for the infection, serves also to immobilize partly the viscera. In case of a pleurisy, an effusion is poured out between the thoracic and visceral pleurae which prevents adhesions and the obliteration of the pleural cavity and at the same time this fluid compresses and, therefore, partially immobilizes the adjacent lung as a protection. Besides this the muscles of the thoracic cage begin contracting, the diaphragm rises and becomes to some extent fixed, the edges of the ribs override and the mediastinum is displaced toward the affected side and all this contributes to the diminution in size of the hemithorax of the homolateral side. Incidental to the rest and immobility and compression which are more or less mechanical, there are physiological effects such as lessening of absorption of the products of infection and diminution of the circulation of both blood and lymph to the affected lung or organ.

It seems true then that this underlying principle of surgery is made use of by nature from the very beginning of most all cases of inflammation, infection or injury. Tuberculosis is no exception.

It is said that there are 800,000 cases of tuberculosis in the U. S. and only 85,000 institutional beds for these cases. That leaves 715,000 cases of tuberculosis to be cared for in the home. Probably nine-tenths of all cases of tuberculosis fall in the group of those not able to pay for the treatment on to a cure. It is not only necessary to care for and treat those who are curable, but to isolate and teach those who are incurable in order to prevent the spread to those with whom they come in contact.

In a state like ours, Mississippi, where there is only one hospital for tuberculosis and where there is only one well trained surgeon to take care of tuberculosis in all its phases, it is utterly impossible to care for this disease as it should be. It is necessary for the general surgeons throughout the state who are vitally interested in the prevention and cure of tuberculosis to prepare themselves for the situation and treat these cases in small units established in connection with small hospitals throughout the state.

I see no reason why any general surgeon could not prepare himself to do the surgical part of the treatment. It is true that those with minimal lesions often do recover with the rest treatment only, but how much more certain and quickly it is done by the modern treatment. If those who have minimal lesions heal with bed rest and proper food only, they heal much more quickly by some form of collapse therapy. Often cases with small cavities are known to heal by the ordinary bed rest therapy, but why take the chance and time for the experiment.

The three most outstanding surgical procedures for the treatment of tuberculosis in the form of collapse are: first, artificial pneumothorax with which is included internal pneumolysis; second, phrenic interruption; and third, thoracoplasty. It is conceded by all authorities, I believe, that artificial pneumothorax is the best and simplest of all the collapse program. It comes nearer effecting a complete collapse than either phrenic interruption or even thoracoplasty. It should practically always be tried first. It can be given in any small hospital.

It can be used in incipient as well as advanced cases.

It can be used in the young as well as the old.

It can be controlled at will by withdrawing some air if too much is given. If is therefore revocable and is considered simple and minor, and yet there are many pit-falls in which one may easily find himself if too careless. There are many contraindications to the use of air in the form of artificial pneumothorax. Some of these are dense pleural adhesions, intestinal lesions, organic heart disease, asthma, emphysema, extreme emaciation, age and dyspnea from any cause.

Many cases cannot be relieved by pneumothorax alone on account of adhesions of the pleurae holding open cavities by many small or large bands but these can often be divided by the process of pneumolysis which frequently allows a complete collapse of the lung closing small cavities or even large ones.

The safest plan in order to prevent certain complications, or even catastrophies, is to begin with a small amount of air, and after getting a collapse establishment, maintain it with refills of from 200 to 300 c.c. of air, always keeping well within the negative side and making rather frequent x-rays of the chest looking for mediastinal displacements and the formation of effusions.

It is only recently that artificial pneumothorax is being used in bilateral cases of tuberculosis and it has been found to be not only possible and feasible, but beneficial. It is also very common to get enough collapse of the contralateral lung by artificial pneumothorax to cause that lung to clear up without direct treatment to it.

It is more common, however, when both lungs are involved, and especially when cavities are present, to stabilize one side with phrenic interruption. For certain good reasons a phrenic interruption is done in preference to an artificial pneumothorax. This operation is also classed as a revocable remedy.

When it is found impossible to do a pneumothorax on account of certain barriers, or is found contraindicated for certain reasons, and when it is found that it is not a suitable case for phrenic interruption, or this has been tried and found of no avail, it then becomes necessary to resort to more radical measures, provided the case is one suitable for such procedure.

Thoracoplasty was originated in Germany and was first performed in a very radical manner by removing all the bony cage of a hemithorax at one operation beginning at the lower portion and working upward. This massive operation was done on most any kind of case whether it was found to be an acute, active and exudative type, or a chronic productive type. The mortality was at least fifty per cent.

Notwithstanding this high mortality and the extreme deformity following this operation, the practice was continued; however, a closer study began and cases more suitable were selected just as quickly as experience proved what these cases were. In the last few years this operation has been done in from two to five stages allowing from one week to six weeks to intervene.

By the careful selection of cases and doing the operation in stages the mortality has dropped to around fifteen per cent in all the first class clinics, which is a very little more than most major operations of other types.

DISCUSSION

DR. JOHN HARTER (Sanatorium): I would like to warn the general surgeons who are thinking of taking up the surgical treatment of pulmonary tuberculosis. A thorough knowledge of pulmonary tuberculosis and of the physiology of the chest is necessary to understand the indications for surgery and to avoid its complications.

Operating on the chest is entirely different from operating on any other portion of the body. The lungs must be kept inflated. If the negative intrapleural pressure is disturbed it may become necessary to use intratracheal, positive pressure inflation of the lungs to maintain life during the operation. The dynamics of the return flow of blood to the heart through the mediastinum must not be disturbed. Thoracoplasty now exposes the sympathetic chain, vagus nerve, brachial plexus, subclavian vessels and the superior vena cava to possible injury.

Another factor is that patients with pulmonary tuberculosis requiring collapse therapy, as thoracoplasty are sick. A person with pulmonary tuberculosis who has been incapacitated for years will not stand simple procedures that would hardly disturb a more normal individual. For this reason and many other important reasons which we cannot go into here the operations must be planned to suit the individual case. The lung must be gradually but completely collapsed in the area of disease. The operation must be planned in several stages and at times it may be necessary to wait several months between stages.

Technically thoracoplasty is considerably different from operations in other parts of the body. The operation must be completed with dispatch. The patients do not stand prolonged procedures. The first two ribs and many times the first three ribs must be completely removed from the cartilage anteriorly to the body of the vertebra posteriorly. In many cases an extrafascial apicalysis is necessary to close the cavity. If the operation is not adequate the patient may undergo three or four operations without benefit.

Crushing of the phrenic nerve may be done by the general surgeon if he is familiar with the anatomy of the neck. If the nerve is crushed and not removed not much harm will usually result, even though the operation may not have been indicated. The dangers of injury of the sympathetic chain or brachial plexus as well as air embolus must be kept in mind.

Pneumothorax therapy is dangerous in the hands of doctors not trained in its use. Air embolus at the time the pneumothorax is initiated or at the time of a refill is a real danger. The prevention and treatment of the complications of pneumothorax requires special training. Pneumothorax should not be used as treatment without a flouroscope or without the means of pneumolysis.

DR. D. L. ANDERSON (Sanatorium): Let me compliment you, Dr. Sutherland, for your interesting paper. I agree with you that there are many problems today confronting us in the treatment and management of the various types of tuberculosis. We wonder at times what should be done, and what can be done for these patients. When we realize that last year 1135 people died from tuberculosis in this state, and that approximately 11,000 open cases exist, then we realize that indeed our problem is a major one. Dr. Hickerson and myself examine approximately 4,000 potients per year in our clinic work. Many of these show minimal tuberculosis, although quite a few are far advanced. Of course, it is impossible to treat all of these cases in the Sanatorium, because of lack of space and appropriation to do this work for such a great number of cases.

Realizing that the Sanatorium is small, and that only a few physicians in the state are equipped to do pneumothorax work, it seems to me that it would be a splendid thing for at least one physician from each county to spend a month or six weeks at the Sanatorium observing the type of cases suitable for pneumothorax. By so doing, these physicians might continue the pneumothorax on the cases after they were discharged from the Sanatorium, and also treat the uncomplicated unilateral type of tuberculosis by this method. I am sure that I voice the sentiment of Dr. Boswell when I suggest this method of helping the control of tuberculosis in this state.

After all, it does require a trained surgeon to give pneumothorax, the administration of which is more or less a simple procedure, but complications might result, such as pleurisy with effusion, empyema and air emolism. For these and other reasons,I think it would be very unwise for any physician to do chest work without proper preparation and equipment. Pneumothorax is the most efficient type of collapse therapy when effective. I have seen large cavities completely collapsed by pneumothorax, and I have seen numerous patients working at manual labor during the interval of their refills without apparent harm. In a certain percentage of the cases, thoracoplasty is necessary to control the spread of the disease and close these large cavities. I wish to compliment Dr. Harter on his splendid work here at the Sanatorium.

Let me again commend you, Dr. Sutherland, for your splendid paper on this important subject.

Rural Obstetrics Quantity and Quality*

R. C. ELEY, M.D.
Moss Point, Miss.

Being a man of action and not of words it would be much easier for me to take you in my car and show you something of rural obstetrics than to tell you about it. However, I am going to treat this subject not as it should be, but as I have found it.

As to the quality of my practice, in obstetrics, there have been babies born to people that are as fine as any people in the world and there have been babies born to people so depraved we wonder sometimes why it has been allowed, and it is interesting to watch and see what the outcome will be.

As to quantity—I'll let you judge for yourself when I tell you that in my 26 years of practice I have delivered over 3000 babies.

I am sorry to say I have never kept records of my patients except birth certificate stubs. This has been a great mistake, I realize, as there are many things I should like to recall that I cannot. I have most of the stubs for the last twenty-two years and these show 2,750. Of these there have been 1,289 white boys, 1,227 white girls; 123 colored boys and 121 colored girls. Of these, there were 25 illegitimate white and 27 colored. There have been 72 still births as far as I can check. This includes all births, full term and premature that were viable. There have been 32 sets of white twins and 7 negro. Of the negroes our orderly at the Jackson County Hospital has had three sets in four years, a girl and boy each time. I have had two patients who lost triplets at three months. I have never delivered triplets that lived.

The country doctor has been a target for the funmakers, and in a few cases they have been eulogized perhaps too much but I am proud to be called a country doctor—even if I do live in a progressive city of about three thousand population—a city with plenty of good fishing and swimming, the best place in the world to live. If you don't believe it come down and try it. Though I have lived in this city, my practice has been largely in the country.

You know a country doctor is not just the doctor, but he is a friend; and not until he helps the farmer deliver his pigs and calves and treat the old mule for the colic, successfully, is he a real country doctor. This is not an easy life, but it is a busy and interesting one. One might say I served an apprenticeship as a country doctor before finishing medicine. After my first year of medicine I was in the drug business for several years before going back to get my degree. My brother, Dr. W. W. Eley, was the only physician for a twenty or more miles circuit. That was in horse and buggy days and I was pressed into service to give anesthetics and first aid. After getting my degree, I was for four years in a small saw mill town where a horse and buggy (and sometimes a saddle) were much more practical than a car. After moving to Moss Point I was forty miles from a hospital, until recently, so you can see I have had very few deliveries in a hospital.

The problems in the country are much the same everywhere. We meet with superstitions, and ignorance, and lack of cooperation, side by side with intelligence and cooperation. I have always carried in my O. B. case necessary gauze, sutures, cotton, a lubricant, alcohol, ergot, ether, umbilical tape, and pituitrin, eye drops, etc. If notified beforehand that I am expected for the event, I ask them to bring a specimen and let me know if they have any unusual symptoms. They may do this or they may not. They are beginning more and more to come in at intervals to be looked over and advised with.

In the homes I have never made an attempt to sterilize the sheets—I insist on sterile water and soap. I make as few examinations as possible. Have only in recent years used gloves. But I have tried to have my hands as clean as hot water and green soap can get them. In some places I have had to get some one to pour water over my hands as there was no basin in the house that would hold water. In places like this we do the best we can and trust in Providence.

With clean hands, apparently clean beds (and sometimes not so apparent), but with the help of bichloride or some other disinfectant, and after delivery lysol solution over the external genitalia, infection is usually avoided. If my patients have a little fever afterwards I give them a calomel purge and some quinine and in two or three days the fever is usually gone. I have had very few cases of infection. I do not use douches unless there are decided symptoms of infection.

---

*Read before the Section on Hygiene and Public Hetlth at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 12, 1937

I have had in my practice eight white caesarians and three negro. One white woman died but the baby lived. One negro woman and baby died. Only four of these babies are included in my records, as I always sent such patients to a hospital and have had only four caesarians since we have had the Jackson County Hospital. All were operated on by experienced surgeons. All the babies have lived except two, and one of these was of six and one-half months gestation. This caesarian was done because of severe hemorrhage due to placenta previa.

One of my caesarians was on a deaf and dumb woman about forty years old with a deaf and dumb husband. When I examined her I found one foot delivered. I worked with her a short while and could not budge the baby by pulling on its foot—so I cleaned the presenting foot with bichloride solution and wrapped it in sterile dressings and carried her to Mobile where a perfectly normal baby girl was delivered by a caesarian operation. She is now going to school and her father and mother are very proud of the fact that she can hear and talk.

I spoke of superstitions. I suppose some of you have had them bring the axe in and put it under the bed to cut the pains. I was called to a woman who had planned to use a midwife. This midwife got in a hurry for the baby to be born and decided the woman was in danger of not delivering it, so she jumped up and down on the woman's abdomen, for she had heard that if you killed the baby it would then be born. The mother stood this as long as possible and then called me. When an examination was made it was found she was only slightly dilated, with hard, rigid cervix, so one-quarter grain of morphine was given hypodermically, and after five hours of rest and sleep, the pains started, a normal delivery was made and a live baby was born. I think this woman called a doctor next time.

Another interesting case was that of a negro woman who had a transverse presentation that had gone about two or three months overtime when I was called. She said she had had pains for about two weeks at the time the baby was due but had not had any pains since. When I examined her I found that the uterus had retained the baby. I advised an operation and she consulted a surgeon who advised the same. She kept putting it off until about two years later it brought on a dropsical condition and she had to be tapped at intervals, for relief, getting two or three gallons of fluid each time. She would be comfortable but gradually grew worse and had to be tapped more and more often until she died. After death we did an autopsy and found a perfectly formed baby, normal in every way and well preserved. I sent this specimen to Mobile to have it put in a jar but in some way it was lost and I never got it back. I have delivered several babies in the country at six and one-half months gestation that lived by using hot bottles around them and giving stimulants and nourishment by means of a medicine dropper until able to nurse.

One of my first patients called me ten miles away. When I got there she was busy washing dishes but assured me it was time for the baby and to "just have a seat and wait." Being new at this business and her a mother of one child, I thought possibly she knew more about it than I did. After spending the night, I decided she must have made a mistake, so I went back home. About two weeks later she sent me word to come again. The messenger got lost and by the time he got to me and I plowed through sandbeds and up hills with my horse and buggy, the baby was about five hours old. Times have changed—now a telephone summons me and after dressing I have made that distance in 15 minutes. I am sure no physician pines for the "good old days."

Another early experience was with the woman who expected the sixteenth child and insisted on lying on a pallet. The baby was born at about six and one-half months gestation. She struggled so, kicking and fighting that I became exhausted trying to expel the placenta. I sent for my brother to come to help me. He came, with the self-satisfied smile of an experienced physician coming to help the inexperienced one, but she greeted him in the same way. When he was exhausted we gave her a general anesthetic and took the placenta. That is the only patient I have had to give a general anesthetic to for such a purpose.

Fortunately, the good old days of no hospital in reach for emergencies are about gone. The education brought about by the county health service, consolidated schools with libraries and magazines available and the home demonstration service, picture shows in nearby towns and the use of the automobile are revolutionizing things; comparatively few women go through pregnancy without some advice from a physician. We country doctors are reasonable in our charges and I am afraid a little too reasonable about collections—so there is no excuse for any woman (at least in Jackson County) being neglected.

There is no sweeter music than the cry of a cyanosed baby after you have worked with it for more than an hour. This is a great life, and we may render a great service—more Power to us.

DISCUSSION

DR. W. H. BANKS, (Philadelphia): I have enjoyed this paper very thoroughly because I did not know there was another man in the state that started to practice medicine like I did, and I practiced 13 years riding on horseback, carrying all of my equipment on the horse. The first year I practiced I had only eight cases during the summer and four of them had uremia complications; three of those boys are living today and greet me as I go about the city in which I live.

I appreciate a paper from a man who has brought into this world some 3,000 men and women, who will be the future generation of the State of Mississippi. I have a record of around 2,000 births and I knock on wood when I say that I have not lost a mother during my 33 years, and at the time I began I was 43 miles from a hospital, so we had to solve all of our troubles ourselves. I saved four mothers the first year in a very peculiar way. I was scared stiff when the first baby was born—the mother did not know anything for about 12 hours and I did not know what else to do only I knew to give calomel, so I just gave her a teaspoonful of calomel in her mouth. I got all the flood gates of elimination open in about three hours and I saved the mother. So I kept on giving calomel. I just pass on to you that a doctor has to do things the way he can. The first case of postpartum hemorrhage I had, I went out and got my pocket handkerchief which I saturated with turpentine and I went in and cleaned out the canal and everything was all right. The mothers are living today. I want to say this that after I had my four cases—that I had eight and four were eclampsias—that I would not wait on them unless I examined the urine and I have had fine cooperation from the mothers. There are things I think are essential—one is examination of kidneys, and another is taking the blood pressure. Now since we have gotten those little machines—I had to go 19 years before I saw one of them—we are better equipped to do this. I do not want to attend any mother that I do not get the pre-natal care of. If you will keep a mother well during the time she is carrying the baby, most of them, if you will let them alone, will deliver that baby, with a few exceptions. I want to say I have practiced medicine on up to now, and I have not used an instrument in three years. We have come to ride in automobiles, we have come to going on trains and airplanes, and we want the babies delivered the same way. Most of the mothers are nervous, but you can get the confidence of your mother, letting her know she can stay in labor 48 hours without trouble. You don't have to use instruments much, but you know the busy doctor runs into a home and he has everything prepared—he begins to make arrangements three or four weeks in advance, has everything fixed, and he runs in and rolls his sleeves up and he has to go somewhere else in a few minutes, so we have come to do an instrument delivery. He ought to go home and stay there. The man that taught me obstetrics was old Dr. King of the University of the South. He says I want to give you one piece of advice, "When you get a call to attend a woman in labor, if you haven't got time, you go home and let somebody who has time to deliver the baby."

I enjoyed this paper because this man has an experience that did not come in a scientific way. I appreciate all the science in the world, and I am glad obstetrics has gone out in the matter of scientific treating of humanity, but it is well not to meddle with nature. God brought the babies in the world when the mother traveled the roads with a little pack on her back and she lay down on the side of the road and delivered her child, and next day went on her journey. I have been in this thing 2,000 times. I have heard Dr. Lapham; I heard the first man that was sent over here to give us the postgraduate work. I drove 53 miles, I delivered three babies during that time, and I appreciate that, but I want to emphasize, *keep your mother alive—get their confidence* when you go there and you will probably get rust on your instruments, but you will have stars in your crown.

I would like to sum up this way. Watch the kidneys; diet accordingly. Keep up with the blood pressure. Get acquainted with your patient early in pregnancy. Be clean in the confinement room. Avoid frequent examinations. Keep your patient at rest in mind and body. Interfere only when you have no other alternative. Twenty hours is the average time for delivery.

DR. WILLIAM SIMMONS (Bay Springs): I do not think there is anything that I can add to this splendid paper. I have not been in practice very long, but I have been down the road quite a little bit. The only thing I can stress is individuality. I believe I can certainly say obstetrics is certainly individuality. One man may make a delivery without any trouble at all, and the following delivery will be a very complicated case. I wish to stress more free delivery, more care, more caution. However, I wish to say that in my short practice, I have used forceps far too little. I do not believe in them. I practiced one year and did not use them at all—delivered 146 and then rather than use pituitrin which I believe will destroy the health of that mother and probably the life of that baby, I did. Let the forceps be sure; otherwise you will wish to God you had not been born. Pituitrin is a good thing in its way. I try to carry everything necessary in my bag, except the pain. I never use vaseline. I do not know whether it is just my preference but I like the Kentucky gelatine. A good conscience when you leave that mother is the best thing under Heaven. To know that you have gone in there and produced an infection, I am sure, is an awful feeling. The antiseptic I use most frequently is plenty of water and lots of green soap. I believe it is the best antiseptic we can use. I have had very few infections, because I use plenty of water. That is one thing that you can keep the husband busy with and probably passive—keep him toting water—hot water if you can, and don't be afraid to use it. You can let them pour it on and still use that green soap. There is not any part of my practice that I like better than obstetrics, and not any part of it makes me more uneasy at times, and sometimes I wish I had never seen a medical book. Don't go shooting pituitrin in to them; it is all right to use it, but use it gradually. By the way, I use chloroform in every case where I give an anesthetic.

DR. M. E. LAPHAM (New Orleans, La.): I want to congratulate Dr. Eley on this excellent paper. It shows a remarkable experience. I think Dr. Banks' experience is likewise remarkable and I presume many others in the audience have had equally interesting obstetrical experiences. There is one thing all country doctors have to do in order to prove that home delivery experience is better or as good as hospital experience and that is to keep records and report from them as Dr. Eley has done. There is a great tendency on the part of men who do not keep rerords to say they have delivered a certain number of babies and that they have had few or no maternal or infant deaths. However, without actual records such statements cannot be taken as scientific evidence. Most of the statistical experiences one sees reported in obstetrics come from well organized clinics, and we feel that because they come from these clinics they represent the best that can be produced in maternity work. I have an idea that if 10 or 15 of you who have delivered from two to five thousand babies could have kept records on all obstetrical cases you probably could put many men in hospital practice to shame in reference to maternal and neonatal mortality. It would make a good problem if one wanted to attempt to prove that conservative obstet-

ricts is preferable. I agree that one should use instrumentation as little as possible and conservatism in obstetrics everywhere will improve maternal and infant mortality. Every man should keep good records, however, in order to prove the worthwhileness of his methods.

DR. ELEY (Closing): I forgot to tell you about one of my freak babies. I had one baby that was born—weighed 10 pounds—with its mouth as wide open as it could possibly be—that mouth was filled full of mucous polyps and it had three tongues. It was normal in every other way. It was a negro baby, and I got a photographer and made some pictures. I tried to get the parents to let me cut the polyps out of its mouth but they said they wanted to put it in a side show. It could not nurse its mother, but if you put a bottle in its mouth it would lap those three tongues around it and it could nurse as well as any baby. The baby lived one month and died of toxemia.

About pituitrin, I use very little of it.

Postpartum Hemmorrhage*

W. A. RUCH, M.D.
Memphis, Tenn.

There is no more startling or fearsome incident in the practice of obstetrics than unexpected, serious postpartum hemorrhage. It is difficult or even impossible to express the quantity of the physiological loss of blood in cubic centimeters. Calkins, Litzenberg, and Plass[1] analyzed a series of approximately 5,600 deliveries and found the average blood loss to be about 150 c.c. although this is considerably less than the amounts previously given as average by the majority of investigators.

Pastore[2], who by the use of a manometer has measured blood loss during 500 deliveries at the New York Hospital, reports the incidence of postpartum hemorrhage as 6.5 per cent with an average blood loss of 244.3 c.c. and found that 7.4 per cent of the patients had a blood loss of less than 300 c.c.

With our present knowledge of anemia peculiar to pregnancy, there is a reasonable explanation of the fact that one woman may easily withstand blood loss much larger than this, while another is seriously affected by an amount that is merely average. It is entirely probable that a preexisting anemia is frequently responsible for this difference. Prolonged labor with concurrent dehydration is another factor in causing especial susceptibility to the effects of postpartum hemorrhage.

The cause of hemorrhage due to atony and hypotony are various, such as abnormal placental attachment (as placenta previa and placenta circumvillata), abnormal shape and development of the uterus (as in uterus bicornis, septus and subseptus), and persistence of uterine exhaustion into the third stage of labor.

Postpartum atony may also follow overdistension of the uterus from multiple pregnancy, or from hydramnion. The mother of the Dionne quintuplets nearly died, according to Dr. Defoe's report[3], as the result of atony of the uterus resulting in postpartum hemorrhage. A loss or an inherent lack of uterine tone is serious, and unfortunately this is an intangible matter to determine in advance.

The loss of irritability of uterine musculature due to too rapid delivery of the child by forceps, precipitate labor, and the deficiency of uterine musculature; myomata, which prevent the muscular layer from contracting; the presence of excessive connective tissue at the expense of musculature; hyalin and fibroid degeneration of the blood vessels, may also be responsible. Considerable importance should be ascribed to any disturbance of internal secretion of the ovaries and even to infection. A disposition to bleed on the part of the patient and no doubt, certain constitutional and racial characteristics cannot be overlooked. It is known that women suffering from Basedow's disease bleed easily and excessively. Women of asthenic hypoplastic constitution often collapse after the loss of a small amount of blood. The disposition to atony of thin-skinned or red-haired women was even known to doctors in ancient times.

Adherent pieces of the placenta may be torn from the main portion of this organ, and remain attached to the wall of the uterus after the remainder of the placenta has been extruded. Bleeding inevitably follows such an accident.

Injuries to the birth canal begin to bleed after the pressure which has been exerted upon these tissues by the child's body is removed by its birth. This hemorrhage is fairly steady in its flow rate, begins immediately after birth, and is usually bright red in color. It has little or no variation related to normal uterine contraction and relaxation during the third stage of labor. Uterine contraction is firm and efficient. Direct examination usually discloses the source of such bleeding.

Hemorrhage due to uterine atony usually begins within a short time, but not always immediately after the delivery of the placenta. It appears as a steady stream of blood coming from the vagina. Ordinarily it does not come on at once because the abrupt diminution in size of the uterus after extrusion of the placenta closes the blood sinuses temporarily.

Salacz[4], of Budapest, in a series of 651 cases found the following factors most important in predisposing patients to atony:

1. Primary and secondary uterine inertia, prolonged labor	19.0

---

*Read before the Issaquena-Sharkey-Warren Counties Medical Society, Vicksburg, June 8, 1937.

2. Rapid delivery with forceps, extraction, precipitate labor	14.0
3. Retention of placenta or cotyledons	13.9
4. Defective placenta or defective membranes	5.2
5. Multiple pregnancy, hydramnion	4.9
6. Fever in labor	4.1
7. Toxemia of pregnancy	2.7
8. Atony in previous labor	2.7
9. Heart disease	1.0
10. Myoma of uterus	0.9

He also noticed no especial predisposition of multiparous women to suffer from atony of the uterus, the ratio being 308 primiparae to 343 multiparae.

The frequency of atony is undoubtedly connected with the method of dealing with the third stage of labor. Unnecessary massage and kneading of the uterus cause contractions which disturb the physiological process. All unnecessary interference should be avoided before and during the third stage of labor.

We have adopted a method outlined by Pastore which is a modified Calkins technique described by Pastore as follows: "When the placenta is separated the fundus is gently massaged or, if there is no bleeding present, it is left alone until a contraction occurs spontaneously. At this time the left hand of the assistant is placed under the symphysis. The fundus is then squeezed and pushed downward with the right hand. The left hand prevents the fundus from entering the pelvis. The placenta can be felt passing through the cervix and at this time the fundus is held up while the operator extracts the placenta from the vagina. There is no necessity for pushing the placenta out of the vagina at the expense of uterine trauma. If the placenta is not completely out of the cervix, the cord is held by the operator while the fundus is lifted up by the assistant. By the use of this method we have reduced the bleeding due to prolapse of the fundus into the vagina. The placenta should be expressed immediately after its separation and not after the conclusion of the repair of perineal lacerations or episiotomies."

If atony exists after the placenta is expressed the intravenous injection of an ampoule of "ergotrate" will usually cause it to contract and continue firm. The placenta should be inspected and if any large fragments are missing they should be removed. Manual removal of placenta or portions of it under ideal conditions offers the same prognosis as the blood loss associated with it.

If the uterus remains contracted and bleeding continues, lacerations should be looked for and repaired.

If atony exists, after massage and the oxytocics mentioned above have been used, tamponade hould be resorted to, and last hysterectomy.

When a single, severe, external hemorrhage takes place, the sequence of events which results is briefly as follows: blood with all its constituents is lost from the body; the total as well as the circulating blood-volume is reduced, and the blood pressure is correspondingly lowered. In an effort to accomodate the remaining blood in an intravascular reservoir of suitable capacity, and to restore the fallen blood pressure level, the arteries and veins contract down upon the diminished volume of blood. If this mechanism fails, or is only partly successful, the circulation is retarded and the capillary pressure falls. Fluid is extracted by the plasma protein from the tissues into the capillaries, and there is an increase in the fluid volume of the blood at the expense of the tissue fluids, so various degrees of tissue dehydration result. Red blood cells are added to the circulation from the muscle and splenic reservoirs. If the circulation is still inefficient, anoxemia, tissue starvation, and a degree of acidosis are liable to develop. Glandular activity, including that of the pancreas, is retarded by the deficiency of the blood supply. The permeability of the capillary wall is increased as a result of the damage to the lining endothelium caused by the inadequate circulation, and plasma protein is allowed to pass into the tissues with the result that transudation of fluid from the vessels into the tissues occurs, with further reduction of the blood volume. Diastolic filling of the right side of the heart is incomplete, so premature systole occurs, and a diminished cardiac output with rapid pulse rate of low volume and poor tension results.

For treatment hemorrhage cases may be classed into two groups, mild and severe.

In the milder case the patient is placed in a warm dry bed, with the head at a slightly lower level than the trunk, and routine nursing treatment is carried out. Glucose water or glucose lemonade is given at frequent intervals by mouth, and this is reinforced, if necessary, by a pint or more of tap water given by rectum. In cases associated with excessive vomiting, glucose saline solution may be given to counteract any tendency to alkalosis. Morphine, 1/6 gr., is given hypodermically to calm the patient, and after the provision of fluid, adrenalin hydrochloride, 1-1,000, in 10 minim doses, may be given intravenously or ephedrine hydrochloride in doses of one grain by mouth, if required.

In the more severe type of case, treatment is carried out on lines of the milder case, including the injection of morphine 1/6 to 1/4 gr., but excluding the vasoconstrictors while further preparations are being made.

If the depressed blood pressure remains below 90 m.m. Hg. after the patient has been warmed and made comfortable, or in any case in which the level is under 80 m.m. Hg., an intravenous infusion is given without delay.

A 1 c.c. ampoule of ephedrine sulphate (0.05 gm. or 3/4 gr.) and one 100 c.c. ampoule of acacia (30 gm.) are added to 500 c.c. of 5 per cent glucose and this solution is given slowly by the intravenous route. Thirty or forty minutes should be taken for the administration of each pint, and one pint is sufficient to tide the patient over the crisis during the recovery stage of the capillary endothelium. Administration of fluid by the intravenous route in excess of this requirement may prove definitely harmful by increasing transudation from the capillaries and thus precipitating cerebral and pulmonary edema, and, in addition, by diluting the residual blood, predisposing to stagnation in the capillary reservoirs, and, therefore, reducing the oxygen-carrying power of the circulating blood. In order to aid absorption and assimulation of the glucose, an intramuscular injection of insulin may be given as the infusion is commenced, about one unit of insulin being allowed for every three grams of glucose.

In the meantime the patient should be typed for a blood transfusion and 500 c.c. of blood given for blood replacement.

In addition to the above, of course, the foot of the bed is routinely raised, but should be lowered during the infusion to discourage the development of cerebral edema by aiding the venous return from the head and neck. Warmth, together with rest and quiet is another one of the essentials of treatment. Postpartum care should include a few days longer in bed, liberal mixed diet, and the administration of iron in some form.

In conclusion it might be said that the rules for minimizing maternal morbidity and mortality resulting from postpartum hemorrhage might be summarized as follows: better technique in our deliveries; proper management of the third stage; proper anticipation and prevention of uterine atony; and in cases where hemorrhage is unavoidable,—prompt and efficient treatment of hemorrhage and shock.

BIBLIOGRAPHY

1. Calkins, L.A., Litzenberg, J. C., and Plass, E. D.: Am. J. Obst. & Gynec. 21:175, 1937.
2. Pastore, J. B., Am. J. Obst. & Gynec. 31, 78, 1936.
3. Defoe, A. R., J.A.M.A. 103, 673, 1934.
4. Salacz, Paul, J. Obst. & Gynec. of Brit. Emp. 42, 476, 1935.

The Traumatic Chest

WESLEY HALL, M.D.
Shelby, Miss.

This paper is being presented with the hope that it may be of some service to the general practitioner.

The material presented is that obtained from a review of the current literature on chest injuries, and from experience in treating the traumatic chest in a three-year service with the Chest Surgery Department of the Baroness Erlanger Hospital, Chattanooga, Tenn.

Definition.—The traumatic chest properly includes any injury to any of the anatomical structures which compose the thorax or its contents, but the scope of this paper includes only penetrating wounds which involve the pleurae and lungs. Injuries to the heart and major blood vessels will not be considered.

Penetrating wounds may be defined as those wounds which involve not only the layers of the chest wall but also the pleurae and lungs.

Cause of Chest Wounds.—It is quite evident that in the past few years chest injuries are on the increase. There are several factors which may account for this, viz, the greater speed and greater number of automobiles with the far greater number of accidents, the greater number of attempted suicides (especially with pistol and shotgun) and the gradual return of prosperity with its associated increase in the amount of drinking and fighting. The ancient weapon of the Americanized Ethiopian, the razor, has been supplanted more recently with the ice-pick and switch-blade knife, and these two instruments of inflicting chest wounds offer a most perplexing problem at times.

It is to be remembered that the contents of the thoracic cage have comparatively little protection from injury as that offered by the frame-work of the skull and bony pelvis, and, in addition, the negative pressure in the pleural cavities further adds to the complications of penetrating wounds.

Symptoms.—The automobile accident chest injury is usually from either a crushing type of injury or else a penetrating wound from a piece of glass or some sharp body which the victim is thrown against. If the injury is the crushing type, multiple rib fractures with fracture of the sternum and penetration into the lung occur. The lung is usually torn widely, and the diaphragm may be ruptured. Marked hemorrhage occurs, and blood is coughed up in large amounts. There is a steady, gradual increase in the symptoms of shock with cyanosis deepening, respirations becoming painful and shallow, blood pressure dropping and the rapid thready pulse climbing in rate. If the chest wound is open to any degree, there is a free interchange of air through the wound, and the to-and-fro sucking sound may be audible with each respiration. This type of chest wound offers a very poor prognosis, for the patient usually succumbs within a few hours at the most.

The pistol shot chest injury may be of very little consequence, but, on the other hand, may cause quite alarming symptoms. The bullet pathway by no means passes directly in a straight line from the point of entrance to the point of exit as every physician can testify. There are numerous cases in which the bullet entrance was directly over the apex of the heart and the exit exactly in the left midscapular line on or about the level of the 4th rib with no signs of blood vessel, lung or heart injury. The sternum, ribs, scapulae, and vertebrae offer excellent agents for ricocheting bullets in freakish pathways. A fairly common chest injury from a pistol wound is that of an attempted suicide in which the pistol is held in the right hand, the apex of the heart felt for, and the barrel of the pistol held against the chest wall. If the trigger is pulled with the forefinger, the direction of the bullet is more lateralward than posteriorly and not infrequently no intrathoracic injury occurs, the bullet pathway merely being around the curve of the ribs. This is especially true in attempted suicides, the bullet entering the chest passing a little below and lateral to the heart, and hemothorax with bleeding into the lung proper results. Only a very minimum percentage of the laity are aware of the fact that one-third of the heart lies to the right of the midsternal line, and it is for this reason alone that heart damage is less than would be expected in this type of chest wound.

Shotgun wounds of the chest, if at close range, are almost instantly fatal even though the heart may not be involved. There is enough lung tissue with smaller blood vessel injury present that the patient dies from hemorrhage and shock within from a few minutes to an hour or two. Massive lung collapse is always present, and gun wadding and pieces of clothing may be scattered throughout the entire lung. The shotgun at close range is a much better weapon of defense (or offense) than the pistol, and this fact is exemplified in the universal use of the shotgun by our penitentiary guards.

At a distance of from twenty to fifty yards the shotgun chest wound is that of multiple small puncture wounds, the severity of which depends upon the size of the shot, the charge of powder and the distance of the victim from the gun. Five to ten birdshot wounds in the chest usually give fairly painful symptoms from pleural irritation, but marked hemorrhage into the pleural cavity with signs of mediastinal shift and heart embarrassment rarely occurs.

The most interesting form of chest injury is that which presents itself as the culmination of a fight. In a three-year survey of chest wounds intentionally inflicted in patients admitted to Erlanger Hospital it was surprising that the ice pick as a means of offense led the list. This was closely followed by pistol shot wounds and knife stab wounds.

The ice pick chest offers about the same picture as the shotgun wound at long range except that more hemorrhage is encountered in the former. There is also more tearing of lung tissue when the ice pick is used as a stabbing agent due to the fact that the rib is used as a fulcrum and the point of the ice pick is forced to-and-fro within the lung proper. Bleeding occurs to a slight extent in the pleural cavity, but most of the hemorrhage is within the lung tissue.

The lung which is injured by means of a stab-incised wound with a knife as the offending agent presents the greatest problem in handling chest injuries. Usually there is a skin and soft tissue wound of from one to six inches in length with the pleura cut at least half as long and the lung incised to a varying depth. These cases practically always show a fairly marked degree of hemopneumothorax with considerable hemorrhage into the lung proper. X-ray views of these chests, as far as the lung itself is concerned and in cases in which pneumothorax is negligible, are almost identical with those of consolidation of lobar pneumonia.

Complications.—The complications of injuries to the chest are legion. There may be subcutaneous infection of the chest wall at the site of the original wound with a burrowing of pus for a considerable distance. The most frequent organism found is the staphylococcus with streptococci and B. coli much less often. It is to be remembered that gas gangrene organisms are present in the majority of wool suits as shown by the experiments of Gage, and because of the fact that particles of clothing are occasionally carried into the chest wound, gas bacillus infection not infrequently occurs.

Pleural effusion may be fairly marked if there is a great amount of pleural injury because it is nature's way of splinting the lung and relieving pain. If no blood vessels are injured, the effusion is serous, but with actual bleeding the condition is more on the side of hemothorax.

Pneumothorax occurs to a more or less extent in all cases in which both layers of the pleurae are involved and the alveoli of the lung penetrated. This may be so marked as to cause massive atelectasis. The mediastinum may shift suddenly and the patient become markedly orthopneic with the pulse rate jumping up to 140 to 160, the respiratory rate increasing to 40 or 50, cyanosis deepening, blood pressure falling, and the facial expression becoming anxious as that of a case of lobar pneumonia.

Empyema is one of the most serious complications of chest injuries. This occurs more frequently where there has been hemothorax because of the fact that blood is such an excellent culture medium. Simple serous effusion, however, is readily infected with organisms and a massive empyema may result. If the infection is carried in from the outside the causative organisms are the staphylococci and streptococci. If the lung has been penetrated, the pneumococcus predominates. Mixed infections occur in the majority of cases of empyema.

Abscess of the lung is relatively infrequent. When present it usually complicates some foreign body that has embedded itself within the lung proper. It may, however, result from a broken down infarction of the lung.

Infarction of the lung complicates chest injury no more than injury to any other part of the body. It may result from emboli breaking off from a thrombus within a vein and lodging within the lung. If multiple and small, they may be mistaken for broncho-pneumonia but larger size infarctions produce alarming symptoms.

Gangrene of the lung follows in cases where there has been considerable hemorrhage into lung tissue and secondary infection with abscess formation. Necrosis may be severe with the patient running a septic course but it is fortunate that this is not a common complication.

Pneumonia as a complication of chest injuries is a subject on which much has been written and very little agreed. It is probable that most cases diagnosed as pneumonia following trauma to the chest are either hemothorax or atelectasis. Then, too, the physical signs of bleeding into lung tissue closely simulate the signs of lobar pneumonia . It is the consensus of opinion of contemporary writers that pneumonia occurs much less following chest injury than was believed a quarter of a century ago.

Osteomyelitis of the ribs is a fairly frequent occurrence where there has been fracture of the ribs with the original injury and complicated by pyogenic drainage. It may also occur in cases in which rib resection has been performed with tube drainage of pus over a length of time.

Treatment.—The treatment of the traumatic chest calls for more forethought and study on the part of the physician than wounds of any other part of the body. In cases of stab or gunshot abdomen, the patient is rushed to the hospital immediately and exploratory laparotomy is performed, the cut or perforated organs being repaired as the occasion demands and bleeding points readily ligated. The injured chest, on the other hand, cannot be split from stem to stern and bleeding so easily controlled. The chief organs of circulation and respiration will not stand for deliberate puttering and pawing about. One needs to attempt lung suture on only one occasion to respect intrathoracic surgery. The negative pressure in the chest further adds to the hazards of thoracic surgery, and concerning this subject much has been written but little agreed upon by the so-called authorities. With this more or less discouraging introduction to the treatment of chest injuries, the skeptic might ask, "Well, what can be done?" The answer is, "Careful observation and conservative treatment." The pendulum has more recently swung from surgical (operative) treatment to medical handling of a vast number of pathological conditions. Cancers of the cervix and breast when found early are now being relatively cured by the use of radium and deep x-ray therapy. Varicose veins are seldom removed by surgery, but instead are being injected with sclerosing agents. Peptic ulcers and chronic cholecystitis cases are now being capably treated by the internist, when fifteen years ago posterior gastro-enterostomies and cholecystectomies were very popular. The wholesale removal of infected fallopian tubes regardless of the age of the patient or the degree of inflammation is now discouraged in most of the larger clinics, and instead various types of heat therapy are being advocated. Amputations for infected or badly traumatized extremities are now postponed to the last resort, when a quarter of a century ago that form of surgery led the field of operations. And now the chest accident case can be handled as well by the internist or general practitioner as the surgeon because the former is far ahead of the latter in physical diagnosis of chest conditions. The ability to recognize pneumothorax, hemothorax, and intrapulmonic hemorrhage by the process of inspection, palpation, percussion and auscultation is as good, if not better, than x-ray diagnosis. The patient is in an awful predicament if his attending physician allows the x-ray to dictate the entire course of his treatment. The roentgen ray, however, is a valuable adjunct to the handling of these cases, but should be considered merely that,—an adjunct.

By "careful observation and conservative treatment" is meant (1) treating the state of shock should the patient be seen at that stage; (2) careful and thorough chest examination with the treating of any superficial wounds; (3) recognizing early whatever complications might occur and intelligently caring for these.

The chest case injured in a car wreck in which there is a crushing type of chest wound with to-and-fro sucking of air should first have the open wound closed with gauze or sterile towel and bound down tightly with adhesive. Wet gauze or wet sterile towel if available prevents the interchange of air from chest to outside much better than dry gauze. The treating of shock is the same here as in any other case; viz, external heat, morphia, elevation of the foot of the bed, fluids (usually by vein) and cardiac and respiratory stimulants as needed. If there is much shift of the heart, fluids intravenously must be given very slowly. Gum acacia I. V. is excellent in overcoming shock due to blood loss.

Wounds of the chest wall received in car wrecks and from knife stabs should have a thorough debridement with careful ligation of all superficial bleeding points. Novocaine infiltration anesthesia requires possibly one to two minutes longer, but the surgeon is well rewarded in more cooperation from the patient. Skin closure should be tight but with interrupted sutures so that should subcutaneous infection occur, only one or two sutures need be removed to promote drainage.

All chest injury cases should be put to bed, but on a back rest at all times as soon as shock, if present, is overcome. The decompensating heart case and the bronchial asthmatic can breathe much more easily while sitting up, but when lying down becomes orthopneic, and the patient with pneumothorax or hemothorax or bleeding into the lung tissue proper reacts the same way. Then, too, one advantage of the back rest position is that should intrathoracic bleeding occur, it would naturally tend to seek the lowest level from gravity and accumulate at the base of the lung. This gives a better prognosis in that multiple pocketing of blood tends to occur less, and when aspiration or tube drainage is necessary only one lake need be drained.

Concerning the use of adhesive strapping of the affected chest wall it may be said that those cases in which pleural pain is a marked symptom should have the advantage of tight strapping. It is to be remembered that serous or sanguinous effusion separates the layers of the pleurae and relieves pleural pain in this manner. Those cases, however, which have no effusion but which have pleural pain should routinely be strapped.

It is surprising how seldom the intercostal arteries are injured from stab or gunshot wounds, but when one recalls the anatomical groove along the inferior border of the rib which almost entirely covers these vessels, it can be readily understood that only in injuries in which the ribs are badly fractured are these vessels severed.

If bleeding occurs into the pleural cavity, as a general rule there will be enough drop in blood pressure and enough increase in intrathoracic pressure to control the hemorrhage when 400 c.c. to 600 c.c. accumulate. When, however, the hemothorax becomes so marked as to give symptoms of mediastinal shift with cardiac embarassment, cyanosis, dyspnea, increased pulse rate with decreased pulse volume, increased respiratory rate, decreased blood pressure, anxious facies with the patient asking every few moments if he is going to die, when this picture is present, intervention is necessary. Aspiration should be employed as low in the midaxillary or posterior axillary line as possible and just enough blood withdrawn to relieve symptoms, the pleural cavity being refilled with about seventy-five per cent as much air as the total amount of blood withdrawn. Pneumothorax, per se, causes little cardiac embarassment as compared with hemothorax and tends to control hemorrhage to a certain extent. Morphine, in cases of hemorrhage, is the drug par excellence and should be given routinely. It not only allays excitement and fear and relieves pain, but quiets respiration and slows heart action, thus indirectly aiding in the control of hemorrhage.

It is the general belief that hemorrhage very seldom continues within the pleural cavity after the first twenty-four to thirty-six hours, and hence aspiraion within this time is contraindicated unless pressure symptoms warrant such a procedure.

When strict asepsis is carried out, there should be no danger of infecting blood within the pleural cavity, and it is probably better to practice repeated aspirations on chests which fill slowly with blood, i.e. aspiration of 150 to 200 c.c. every two days. It is well to remember, however, that blood transfusion should be given to these cases before marked anemia occurs. Transfusions, when given in small amounts and repeated, do much to control slow bleeding.

If aspiration with smear and culture reveals infection, drainage is indicated. One method of drainage which is gaining popularity in most hospitals now is the insertion of the French rubber catheter, size 14, into the pleural cavity in the mid or posterior axillary line about the seventh or eighth intercostal space. This is readily carried out in bed under local infiltration anesthesia. A gallbladder trocar, or some similar trocar through which the catheter may be passed, is introduced between the ribs with the dorsal spine flexed to the opposite side from the pleural cavity to be drained so that the interspaces are separated more widely. The plunger of the trocar is pulled out as soon as the point of the instrument is pushed into the pleural cavity, and the catheter inserted through the barrel of the trocar. The catheter should be measured so that at least three inches of the proximal end is within the chest. It is well to have several additional holes cut in the end of the catheter which lies inside the parietal pleura and a rubber finger cot which has its end obliquely cut, over the outer end of the catheter. This provides a ball-valve action with respirations. On inspiration the rubber finger cot collapses and no air enters the chest. On expiration both drainage and air within the pleural cavity may be pushed through to the outside.

Irrigation of the pleural cavity is contraindicated before the mediastinum has had time to become "fixed," but in cases approaching the chronic stage it may be carried out with impunity. Warm sterile boric acid solution, 1:20,000 solution of mercarbolide, merthiolate or metaphen or even normal saline solution may be used.

Rib resection with introduction of fairly large size drainage tubes is occasionally indicated where there is thick pus present in the pleural cavity. It is well to remember that a persistent temperature elevation following rib resection drainage in which all drainage has ceased may be caused from osteomyelitis of the rib ends which were left bare at rib resection.

The use of the Wangensteen negative pressure apparatus attached to chest tube drains, whether it be pneumothorax, hemothorax, or empyema will facilitate drainage greatly and also aid in re-expansion of a collapsed lung. Another method of helping to re-expand an atelectatic lung is the blowing of water from a bottle through a two way stopper by means of glass tubing. This exercise should be carried out twice daily for at least thirty minutes at a time. It is surprising how well the chest case looks forward to his daily blowing exercise and improvement is noted by him even before it is seen on x-ray films.

SUMMARY

I. Chest injuries have greatly increased since the advent of the automobile.

II. The most frequent causes of chest injuries include auto wrecks and ice pick, gunshot and knife wounds.

III. Pain and shock are common symptoms.

IV. Complications of chest injuries are legion.

V. Expectant, conservative treatment with careful and frequent chest examination should be carried out, and rib resection with tube drainage should be used as a last resort.

MISSISSIPPI STATE MEDICAL ASSOCIATION

Organized 1867

OFFICERS

President	W. L. Little, M.D., Wesson
President-Elect	Joseph E. Green, M.D., Laurel
Vice-Presidents	F. S. Hill, M.D., Grenada Lawrence W. Long, M.D., Jackson R. F. Ratcliff, M.D., Lucedale
Historian	Leon S. Lippincott, M.D., Vicksburg
Speaker	J. P. Wall, M.D., Jackson
Secretary	T. M. Dye, M.D., Clarksdale
Treasurer	E. LeRoy Wilkins, M.D., Clarksdale

COUNCIL

First District	J. W. Lucas, M.D., Moorhead
Second District	L. L. Minor, M.D., Rt. 4, Memphis, Tenn.
Third District	R. B. Caldwell, M.D., Baldwyn
Fourth District	T. J. Brown, M.D., Grenada
Fifth District	W. H. Watson, M.D., Brandon
Sixth District	H. Lowry Rush, M.D., Meridian
Seventh District	J. Gould Gardner, M.D., Columbia
Eighth District	W. H. Frizell, M.D., Brookhaven
Ninth District	D. J. Williams, M.D.. Gulfport

COMMITTEES

Constitution and By-Laws: W. H. Frizell, M.D., Brookhaven; J. Rice Williams, M.D., Houston; W. W. Crawford, M.D., Hattiesburg.

Budget and Finance: J. B. Howell, M.D., Canton; B. S. Guyton, M.D., Oxford; D. C. Montgomery, M.D., Greenville.

Public Policy and Legislation: W. H. Anderson, M.D., Booneville; F. J. Underwood, M.D., Jackson; Henry Boswell, M.D., Sanatorium.

Publication: Leon S. Lippincott, M.D., Vicksburg; D. W. Jones, M.D., Jackson; G. S. Bryan, M.D., Amory.

Program: T. M. Dye, M.D., Clarksdale.

Isolation Hospitals: H. F. Garrison, M.D., Jackson; J. Gould Gardner, M.D., Columbia; H. C. Ricks, M.D., Jackson; W. H. Anderson, M.D., Booneville; John Darrington, M.D., Yazoo City.

CHAIRMAN OF SECTIONS

Medicine	L. J. Clark, M.D., Vicksburg
Surgery	J. Gould Gardner, M.D., Columbia
Hygiene and Public Health	H. C. Ricks, M.D., Jackson
Eye, Ear, Nose and Throat	Van Dye Hagaman, Jackson

ADVISORY TO WOMAN'S AUXILIARY

W. L. Little, M.D.,	Wesson	Henry Boswell, M.D.,	Sanatorium
Joseph E. Green, M.D.,	Laurel	T. M. Dye, M.D.,	Clarksdale
T. J. Brown, M.D.,	Grenada		

Mississippi State Medical Association

Leon S. Lippincott, M.D., ...Editor
D. W. Jones, M.D., ...Associate Editor
G. S. Bryan, M.D., ...Associate Editor

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

EDITORIALS

INTERPRETING CURRENT LITERATURE

In the realization that the curent medical literature is too voluminous for any doctor to read were it available to him and with the idea that much that is good is being missed by most of us, a new department is being added this month to the section of *The Mississippi Doctor* devoted to the Mississippi State Medical Association. This department will cover the various branches of medicine and will be carried on by members of the Association whose opinions will be considered authoritative. Not only will brief summaries be given but they will be interpreted and commented upon as to their probable value and usefulness. Sometimes published methods are good, sometimes they are not so good or difficult to understand unless interpreted by those who are devoting their work to the particular line involved. It is essentially the purpose of this department to be practical and safe.

The branches of medicine to be covered with the names of those who have kindly and unselfishly consented to handle them for the members of the Association are:

INTERNAL MEDICINE: L. J. Clark, Vicksburg.

OBSTETRICS AND GYNECOLOGY: Joe P. Evans, Gulfport.

PEDIATRICS: Harvey F. Garrison, Jackson.

PUBLIC HEALTH: Felix J. Underwood, Jackson.

TUBERCULOSIS: Henry Boswell, Sanatorium.

NEURO-PSYCHIATRY: C. D. Mitchell, Whitfield.

EYE, EAR, NOSE AND THROAT: Alston Callahan, Vicksburg.

ORTHOPEDICS: T. H. Blake, Jackson.

RADIOLOGY: J. A. Beals, Greenville.

Others will be added. It is the hope of your editor that there may be discussions of the information furnished. It is well that everyone does not always agree or there would be no progress. Comments will be welcomed.

A beginning is made this month on a following page.

AN UNENVIABLE POSITION

In the October 1 number of *Public Health Reports* are published preliminary reports of cases of venereal diseases from forty states and the District of Columbia for July, 1937. The monthly case rate of syphilis for Mississippi (10.74 per 10,000 population) is second only to that of Florida (11.17 per 10,000 population and the monthly case rate of gonorrhea (13.13 per 10,000 population) is more than three times the next highest rate, that of California (3.77 per 10,000 population. It is shown that 2,156 cases of syphilis were reported in Mississippi in July and 2,637 cases of gonorrhea.

The lowest rates for venereal diseases were shown by Utah in which only two cases of syphilis with a case rate of 0.04 and seven cases of gonorrhea with a cast rate of 0.14 were reported.

Of course, it is possible that the Mississippi doctors were more conscientious in making reports than the doctors of some of the other states. Also some of the reports were incomplete and subject to correction, some included only reports from clinics, and some included only cases of syphilis in the infectious stage.

In any case it seems very essential that the doctors of Mississippi should give every cooperation to the movement now in effect to reduce the incidence of venereal diseases throughout the nation.

THE LARGER AIM

There is the oft recurring feeling in the minds of many doctors that the monthly repetition of attending medical society meetings is just a sort of routine with not much back of it—good fellowship and a lot of papers that make it pleasant but not vitally important. Probably every doctor will confess to such occasional feelings.

But there is so much that organized medicine does, that is of vastly more importance than the country-wide series of monthly meetings, that the individual member of a society must constantly remember that he is one of the thousands whose support and participation in the routine make possible these larger things. For out of the great body of medical society members we get those selected men who bend their efforts towards special objectives, some local and many state-wide and national in character.

Particularly at this time, the activities of organized medicine are having vast though often hidden weight, helping to push nearer to the ultimate goal of better medical care for all of the people under the direction and guidance of a medical profession whose services will be recognized and remunerated.

While enjoying the strictly personal pleasures and benefits of local contacts, we must remember that being a member of a medical society means adding strength and weight to a movement that could not exist and accomplish without the study pressure of the thousands of individual members who make up the whole. Success will come from the loyalty of each doctor to his society and its activities; of each society to the State Association; of each state association to the national organization.

GROUP HOSPITALIZATION

As the Mississippi State Hospital Association through the state charter of the Mississippi Hospital Service Corporation is about to begin to offer contracts for periodic payments for hospital care to the people of Mississippi, it may be well to consider a few abstracts from the address of Mr. A. E. Hardgrove, assistant secretary of the American Hospital Association, presented at the meeting of the State Hospital Association at Meridian last May. The American Hospital Association has been in close contact with the movement to provide better hospital care for the greatest number at a price that they can pay, and Mr. Hardgrove is considered as an authority on the subject. He said in part:

It does seem rather presumptuous after the study that your individual members and your committee have made to get up and try to say what periodic payments for hospital service comprise. I think you know the basic principle underlying this just as well as I. Therefore, it would seem the only thing for me to do is to repeat, and I might emphasize in some ways, the recommendations that the American Hospital Association has seen fit to prepare, based upon its national experience in the study of all plans, likewise the study of plans abroad as well. As you know, last fall it was announced at the Cleveland Convention, or shortly afterwards that the Julius Rosenwald Fund had provided $100,000 that could be spent over a period of five years, for the complete study of hospitalization plans to guide them. They seemed to feel that the movement was becoming nationally a big enough problem that they were willing to put $100,000 into the direction of the study of this plan for the next five years.

Group hospitalization plans, or the periodic payment plan for hospital service, is primarily for the benefit of the public. It is not for the benefit of your hospitals, nor for the benefit of my hospital, or the benefit of any doctor. It is primarily for the benefit of the public, and this should be the approach to this problem. I think that is the thing that we want to turn to—what type of plan is going to be for the benefit of your public. It is a public demand that you are facing, and today, maybe not in your state, but in other places, the history of these plans is that once they get started the sales force cannot keep up with the requests. The Chicago plan started a few months ago. Their salesman came out to our place one day and when he came out there they were several hundred requests behind, so it is a popular demand that we are facing today for this type of thing—the people want it.

New York has been very active in their radio broadcasts. On May 2nd they celebrated the first anniversary of their plan. May 7th they announced 385,000 in that one plan.

On Feb. 15th the plan at Chapel Hill that is backed by the North Carolina Hospital Association and the North Carolina Medical Association had 21,862 subscribers, and Mr. Sibley from Birmingham will later tell you the success that Alabama has had, so it would seem that in a state such as Mississippi where you do not have any real large cities or any number of real large industrial towns, that this present trend towards a strong simple organization that goes out in the various communities and organizes as a state proposition would be the one you might naturally turn to. In organizing that type of plan, what precaution should we take? It would certainly be a great mistake to have the control of any such plan pass out from the hospitals and the medical profession themselves.

The history of the operating fund is that they start out with 20 per cent of income as the cost of operation in the beginning, and then as the plan grows this drops. It seemed at the last meeting I attended the average was 15 per cent of the income. It is Dr. Van Dyke's idea to cut it down to 10 or 12 per cent, but it may be that it will be around 15 per cent. In the sale of insurance the usual commission to the insurance agent is about 20 per cent. Here these plans operate on an over-head of approximately what is 15 per cent, so you see by keeping it on a non-profit basis, being operated by your own people, how much more you can do for the people by keeping the cost down.

Free choice of hospitals has been emphasized. I do not have to refer to that again. The patient should not expect, or the subscriber should not expect the hospital to change its rules. If the hospital as a closed staff he should not expect to get anything other than the plan calls for. Furthermore it should include all hospitals in the community if it is possible to get them. Hospitals should not be competitive—they should be cooperative, and this is one of the ways they can experience that type of endeavor, so, therefore, all hospitals in the community or in the state should be members of the plan.

It seems that the directors of these plans have taken a particular dislike to the word "sell" and you cannot get one of them to admit that he sells to subscribers; they offer subscriptions. They say, "We are doing it for you, and for the people of the state, and if you want it, here it is; if you do not we are not making anything financially out of it whatever; we are offering it to you, we are not selling it," and that is the attitude that has been taken in the promotion of the most successful plans in the United States today.

I would leave this thought with you that as far as we know there has been no plan that has been started under the proper supervision, but what has been successful, but we do know of a number that have started under the wrong type of sponsorship that have come to failure.

POST-GRADUATE MEDICAL EDUCATION

Courses in syphilology and pediatrics are being given currently in Mississippi under the auspices of the Committee on Postgraduate Medical Education of Mississippi and the Division of Medical Extension of Tulane University. The course in syphiology includes five-one hour lectures, some of which are illustrated by moving pictures and lantern slides, round table conferences, clinical demontsrations, and consultations.

The subjects of the lectures are:

1. Pathology of Syphilis.
   Interpretation of Laboratory Tests for Syphilis.
2. Syphilis of the Circulatory and Nervous System.
3. Congenital Syphilis.
   Syphilis Complicating Pregnancy.
   Systemic Manifestations of Syphilis.
   General Outline for Treatment of Late Syphilis.
4. Diagnosis and Treatment of Primary Syphilis.
5. Skin Manifestations of Syphilis.
   Drug Reactions in Treatment of Syphilis.

At the round table conferences following the lectures questions are answered concerning the content of the current lecture and problems on any subject are discussed by the instructors.

Whenever patients are available clinical procedures are demonstrated. The success of this part of the course depends very largely upon the cooperation of the doctors, since they must provide the patients for the clinic.

The instructors are glad to use available time outside of the formal meetings to see patients with physicians alone or in groups.

The instructors: Dr. B. J. deLaureal, of the department of medicine, Tulane University, has had extensive experience in the teaching and practice of syphilology. He has had charge of the syphilologic services at Touro Infirmary and Flint-Goodridge Hospital for several years. Dr. John H. Musser, professor of medicine, and Dr. I. I. Lemann, late professor of clinical medicine, Tulane University, considered him one of the best qualified men to present this subject from the standpoint of internal medicine. Dr. M. T. Van Studdiford, assistant professor of dermatology, both as a teacher and as a practitioner. He is a licentiate of the American Board of Dermatology and Syphilology and presents the subject particularly from the dermatologic point of view.

The course in pediatrics is arranged in a similar manner.

The subjects of the lectures are:

1. The Newborn Infant.
2. Most Frequent Causes of Vomiting in Infancy.
3. The Immunizations.
4. The Nutritional Requirements of Infancy.
5. Nutritional Diseases of Infancy and Childhood.

There will also be round table conferences, clinical demonstrations and consultations.

The instructors: Dr. Robert A. Strong, is professor of pediatrics in the School of Medicine, Tulane University. He has had long experience in teaching, and in private practice and has contributed extensively to the pediatric literature. He is a charter member of the American Academy of Pediatrics and a licentiate of the American Board of Pediatrics. Dr. Strong has conducted the extension course in pediatrics in Mississippi for the past year and a half. Physicians who have attended this course state that they are exceedingly grateful for the instrution. Dr. Don Julian Graubarth who is assistant professor of pediatrics at Tulane University, was recommended by Dr. Strong as the man who could best give the part of the course in pediatrics dealing with nutrition and nutritional diseases of the infant. He is a graduate of the School of Medicine of Tulane University and has done graduate work at the University of Cincinnati. He is a member of the American Academy of Pediatrics and a licentiate of the American Board of Pediatrics. He has had a wide experience both in teaching and in private practice.

The Committee on Postgraduate Medical Education of Mississippi, after sponsoring medical extension courses for nearly three years, felt that a permanent program for extension medical education should be established. The Division of Medical Extension of Tulane University was, therefore, asked to conduct this work in the future, with the cooperation of the existing Committee on Post-graduate Medical Education of Mississippi. This appears to be a real step forward tive medical organizations in Mississippi have in medical education, since the representa- aligned themselves with an established medical school for the purpose of perpetuating medical extension in the state. Dr. Maxwell E. Lapham, who formerly conducted extension courses in obstetrics in Mississippi, is director of the Division of Medical Extension of Tulane University.

The Committee on Post-graduate Medical Education of Mississippi consists of Drs. W. L. Little, T. M. Dye, C. C. Bass, J. W. Lipscomp, H. W. Kostmayer, L. S. Lippincott, W. H. Anderson, Felix J. Underwood, and Maxwell E. Lapham.

RESULTS OF COURSE IN POST-GRADUATE MEDICAL EDUCATION SINCE JUNE 1, 1937

	Pediatrics	*Syphilology*
Number of Courses	6	2
Number of Enrolled Members	79	29
% Attendance of Enrolled Members	90%	84.8%
No. of Men Paying Fees	67*	27*
Visitors at Meetings:		
Doctors	20	16
Others (Nurses, etc.)	145	66
Consultations	42	15
Clinic Patients	7	1
Lay Talks	3	6
Attendance at Lay Talks	320	380

*Incomplete

YOUR MEDICAL SOCIETY

Your medical society is as bad or as good as its membership. If the members think it has deteriorated or is going backward it will do so. Or, if they believe it is the best society in the whole state, it will be. It is just the kind of a society the members make it.

DIRECTORY AND CALENDAR OR MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-first Annual Session and Thirty-fifth Annual Session of the House of Delegates, Jackson, April 19, 20, 21, 1938.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p. m.

Amite County Medical Society: W. S. Stewart, Osyka, president; D. H. Thornhill, Crosby, secretary. Meets second Thursday, each month, with Wilkinson County Medical Society, Field Memorial Hospital, Centreville.

Central Medical Society: L. W. Long, Jackson, president; A. Gayden Ward, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m., except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. E. Powell, Charleston, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clarke-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: I. W. Barrett, Clarksdale, president; N. C. Knight, Clarksdale, secretary. Meets second Wednesday, each month, Clarksdale Hospital, Clarksdale, 1:30 p. m.

Coast Counties Medical Society: E. B. Van Ness, Gulfport, president; D. L. Hollis, Biloxi, secretary. Meets first Wednesday, each monht.

Delta Medical Society: E. T. White, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

DeSoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, secretary. Meets first Monday of January, April, July, October, Hernando, 10 a. m.

East Mississippi Medical Society: T. G. Cleveland, Meridian, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: C. A. Everett, Bude, president; L. Costley, Meadville, secretary. Next meeting January, 1938, Quentin.

George County Medical Society: R. F. Ratliff, Lucedale, president; J. L. Spiceland, Lucedale, secretary.

Hancock County Medical Society: D. H. Ward, Bay St. Louis, president; A. P. Smith, Bay St. Louis, secretary.

Harrison County Medical Society: E. B. VanNess, Gulfport, president; D. L. Hollis, Biloxi, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, *Society*: G. C. Jarratt, Vicksburg, president; July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday, each month, Mississippi State Charity Hospital, Vicksburg, 7 p. m.

Jackson County Medical Society: F. O. Schmidt, Ocean Springs, president; R. G. Lander, Pascagoula, secretary. Meets second Thursday of March, June, September, Pascagoula, 7 p. m.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Marshall County Medical Society: C. R. Senter, Byhalia, president; Herbert Phillips, Holly Springs, secretary. Meets second Thursday, each month, alternating between Byhalia and Holly Springs.

Newton County Medical Society: W. T. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: G. H. Wood, Batesville, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: L. L. McDougal, Booneville, president;A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September and December.

Pike County Medical Society: J. L. Bauer, McComb, president; Elise Rutledge, McComb, secretary. Meets first Thursday, each month, McComb 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R.F.D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg president; Carlton Temple, Hattiesburg, secretary.

Stone County Medical Society: Earl W. Green, Wiggins, secretary. Meets with Coast Counties Medical Society.

***Sunflower County Medical Society*: U. S. Wasson, Moorhead, president; H. B. Cottrell,** Indianola, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday each month, Senatobia.

Tri-County Medical Society: D. T. Langston, New Hebron, president; R. B. Zeller, Hazlehurst, secretary. Meets March, Copiah-Lincoln Junior College, Wesson; June, Walthal Hotel, Tylertown; September, Riverside Hotel, Monticello; December 14, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president; H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: E. M. Butler, Centreville, secretary. Meets second Thursday with Amite County Medical Society, Field Memorial Hospital, Centreville.

Winona District Medical Society: P. B. Brumby, Lexington, secretary.

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION: Ninth Annual Session, Jackson, April 18, 1938.

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary: First Monday, each month, 6:00 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital: Third Wednesday, each month, 7:30 p. m.

Charleston Hospital: First Thursday, each month, 7:00 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12:00 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p. m.

George C. Hixon Memorial Hospital: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium: Third Thursday, each month, 8:00 p. m.

Greenwood Leflore Hospital: First Thursday, each month, 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital: Second Thursday, each month, 7:00 p. m.

Houston Hospital: Fourth Friday, each month, 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p. m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p.m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital. Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 7:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.

Magee General Hospital: Twenty-fifth each month, 6:00 p. m.

Mayes Hospital: First Monday, each month, 2:30 p. m.

McComb City Hospital: First Tuesday, each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday, each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Infirmary: Second Thursday, each month.

Northeast Mississippi Hospital: First Monday, each month, 7:00 p. m.

Oktibbeha Hospital: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veterans' Hospital, Gulfport: Every Monday, Tuesday, Wednesday and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month, 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

MISSISSIPPI STATE BOARD OF HEALTH

Gold Seal Certificates of Merit were awarded to fifty-two Mississippi counties for superior achievement during National Negro Health Week. Activities in fifty-four counties were reported to the U. S. Public Health Service by the division of health education. Roscoe Brown, outstanding health educator, notified the Board of Health of Mississippi's high rating in this work.

Mr. Gustavo Noguera of Colombia, South America, is the guest for several months of the Borad of Health's division of sanitary engineering. His time will be divided between the office where he will study blue prints and procedure, and the field where he will observe approved water supply and excreta disposal systems, and other sanitation measures. Accompanied by Mr. H. A. Kroeze, director of sanitary engineering, Mr. Noguera will attend the Dairy Exposition in New Orleans, Oct. 18.

On September 2, Dr. Felix J. Underwood addressed the Rotary Club, Tunica, on the subject, "The Venereal Diseases." Social hygine was also the subject of his address Sept. 8 to the Rotary Club of Charleston. Pointing out that a large percentage of syphilis and gonorrhea can be cured by early detection and proper treatment, the health executive asked for the aid of both clubs in the war against these death-dealing diseases.

Miss Carolina Randolph of the Commonwealth Fund, New York City, visited Mississippi's Commonwealth counties, Lauderdale, Jones, and Pike, for a discussion of office procedure.

State Board of Health representatives attending the Mississippi Tuberculosis Association luncheon at the Robert E. Lee Hotel, Sept. 17 included: Dr. Felix J. Underwood, who addressed the assembled group on "The Value of Association Work," Dr. H. C. Ricks, Dr. J. W. Dugger, Dr. A. L. Gray, Miss Gladys Eyrich, Miss Jessie Lynn Ruff, Mrs. Lillye Kole Purser, Miss Aileen Britton, and Miss Eleanor Hassell.

Dr. Clarence L. Scamman, director, division of public health, Commonwealth Fund, New York, visited the State Board of Health and conferred with Dr. Underwood concernnig Mississippi's health program.

On Sept. 28 and 30, Dr. Underwood attended the Regional Conference meetings of the American Red Cross in Biloxi and Jackson, addressing these groups on the value of emergency sanitation and other public health measures during time of disaster.

Six public health nurses affiliated with the State Board of Health have been granted four months' scholarships beginning Sept. 20. Frances Carlisle, Vicksburg; Caroline Benoist, Indianola; Louise James, McComb; and Joye McConnell, Holly Springs, will enter Vanderbilt University. O'Connor George, Jackson; and Violet Hatton, Brookhaven, will study at Columbia.

Dr. R. H. Hutcheson, director of local health work for the Tennessee Health Department, spent a week in Mississippi observing and studying the health set-up in this state. Met in Holly Springs by Dr. Felix J. Underwood, state health officer, Dr. H. C. Ricks, director of county health work and epidemiology, and Dr. A. L. Gray, supervisor of the field epidemiological unit, the visitor heard Dr. Gray's report on a communicable disease control study just completed for Marshall County.

During the remainder of his visit Dr. Hutcheson observed activities of the state health department, giving special attention to local health service and the field unit. Dr. J. A. Milne, director of the field unit, conducted him on a visit through the state.

Dr. H. C. Ricks, director of county health work and epidemiology, and Dr. George Riley, supervisor of malaria control, assisted in the examination of students at the University of Mississippi. With Dr. J. W. Dugger, director of industrial hygiene, they also cooperated in the examination of State College students.

Dr. H. Urban, social and economic research worker for TVA, Knoxville, Tennessee, was a recent visitor to the state board of health.

September speakers on the Board of Health's weekly radio program over WJDX were: Dr. Underwood, who showed why "The Business of Public Health Always Pays;" Dr. W. E. Noblin, director of the Hinds County Health Department, who explained how his title, "Is Your Child Ready for School?," might be answered in the affirmative; Miss Gladys Eyrich, supervisor of dental health, who with Miss Sarah Hill, Hinds County dental hygienist, Miss Lila Mae Herring and Miss Eleanor Hassell of the State Board of Health, told "Tales of a Tooth Tour;" and Dr. Joe E. Green, president-elect of the Mississippi State Medical Association, who brought out the close relation of medicine and public health in his talk, "The Family Physician's Part in the Public Health Program."

Jackson, Felix J. Underwood,
Oct. 5, 1937. Executive Officer.

VITAL STATISTICS

Changes in County Registrars of Births and Deaths

On October 1, 1937, the following changes in county registrars of vital statistics in Mississippi will be effective:

Calhoun County

New Registrar: Mrs. Esther Bennett, Calhoun City. Deputy Registrar: L. F. Bennett, Calhoun City.

Carroll County

New Registrar: (1st Court Dist.) Mrs. Vardaman Campbell, N. Carrollton. Deputy Registrar: Vardaman Campbell, North Carrollton. New Registrar: (2nd Court Dist.) Mrs. B. P. Cain, Vaiden. Deputy Registrar: Mrs. D. R. Hatcher, Vaiden.

Clay County

New Registrar: Mrs. Iva H. McClellan, West Point, (Phone No. 24). Deputy Registrar: Ruby White Williams, West Point.

Greene County

New Registrar: Mrs. Lorena Skehan, Leakesville. Deputy Registrar: Georgia Rae Fletcher, Leakesville.

Issaquena County

New Registrar: Mrs. Alice Lee, Mayersville. (Deputy Registrar to be named later).

Jones County

New Registrar: Mrs. Eva T. Cranford, Ellisville (Phone No. 87). Deputy Registrar: Dr. A. R. Perry, County Health Officer, Health Department, Laurel, Phone 15; Home address, 2633, 5th Ave., Phone No. 1042-J. (In case Dr. Perry cannot be located, apply to Miss Nona Blanton, Health Department, during the day. Home address, 1320 —2nd Avenue, Phone No. 587).

Lincoln County

New Registrar: Mrs. Alice B. Hardison, 307 Natchez Ave., Brookhaven, Phone 565. Deputy Registrar: Mrs. Paul S. Burt, Brookhaven.

Rankin County

New Registrar: Mrs. Audrey Lee Webb, Florence, Rt. 4. Deputy Registrar: T. B. Webb, Sr., Florence. Mrs. Ernest Sebron will be deputy registrar at Whitfield Insane Hospital).

Tallahatchie County
(First Judicial District)

New Registrar: Mrs. Isabel Sumners, Charleston (Phone 50). Deputy Registrar: Miss Birdie Harrison, Charleston.

Tishomingo County

New Registrar: Mrs. Ruby Gay Gardner, Iuka (Phone 4-J). Deputy Registrar: W. H. Gardner, Iuka.

Walthall County

New Registrar: Mrs. Trixie Copes, Tylertown (Phone 89). Deputy Registrar: Miss Grace Conerly, Tylertown.

Webster County

New Registrar: Mrs. Willie B. Parker, Stewart. Deputy Registrar: Mrs. T. B. Foard, Eupora.

Wilkinson County

New Registrar: Mrs. Clark McKey, Centreville. Deputy Registrar: Mrs. Alita Lowrey, Woodville.

Jackson, R. N. Whitfield,
Sept. 30, 1937. Special Agent.

INTERPRETING CURRENT LITERATURE
PEDIATRICS

Harvey F. Garrison, Jackson

To The Physicians of Mississippi:

Dr. Lippincott has asked that I become responsible for a section on Pediatrics. It is our desire to submit abstracts of current pediatric literature which we hope will prove beneficial to the physicians of Mississippi. We will take the liberty of adding such comments from time to time as we feel will be of interest to the practitioners of medicine in this state.

In this, the first issue of the abstracts, I wish to state that I shall make every effort to abstract the pediatric literature briefly. It is my hope that they will be of value to the general practitioner. Highly scientific and technical reports will not be abstracted unless containing practical information for the general practitioner.

Harvey F. Garrison.

Prophylactic and Therapeutic Use of Scarlet Fever Convalescent Serum.—Clarence M. Hyland and Lucile Russell Anderson.—Am. J. Dis. Child. 54 (Sept.) 1937.

The authors advocate the administration of scarlet fever convalescent serum for prophylaxis and therapeusis. They report 102 patients exposed to scarlet fever at home who received convalescent serum for prophylaxis; 96 per cent did not have the disease and in the other four per cent the disease was definitely modified. Forty-seven patients with scarlet fever were given the serum therapeutically and all but one showed improvement. They conclude that convalescent serum lessens the incidence, duration and severity of complications.

Active Immunization Against Diphtheria.—H. C. Maurice Williams et al.—Brit. M. J. 2: 1078.

In a study of a series of children under ten years of age, immunization against diphtheria was practiced with toxoid-antitoxin floccules, toxoid-antitoxin mixture and alum precipitated toxoid. They conclude that the "one-shot" method of immunization (alum precipitated toxoid) is much less certain than the three injections of the toxin-antitoxin.

The above article bears out the experience of the majority of pediatricians in this country. The percentage of negative Schick tests after the administration of the alum precipitated toxoid has been as low as 60 per cent.

Infection of the Lower Part of the Genital Tract in Girls.—J. L. Reichert et al.—Am. J. Dis. Child. 54 (Sept.) 1937.

The authors present a comprehensive study of 121 patients over a period of five years. In 76.6 per cent the infection was gonorrheal and in 23.4 per cent non-specific. They point out that cervical erosions must be looked for and, if present, advocate topical applications of 10 per cent silver nitrate. They have developed tragacanth jelly as a base for administering local antiseptics. Its advantages are that it does not melt at body temperature, is hygroscopic, is soluble in water, and when warmed to body temperature, may be injected through a catheter into the vagina. They found two per cent strong silver protein (protargol) to be the most effective germicide. Its use resulted in cure in 80 per cent of the cases with treatment for six weeks. Injections were made on an average of every other day. Recurrences were ten per cent. The average time in treating non-specific infections was a little shorter.

They administered estrogen (theelin) in 32 cases. Untoward constitutional reactions occurred in three cases and engorgement of breasts and growth of public hair resulted frequently. The results in these cases were similar to those receiving local treatment but recurrences were present in a higher percentage.

They conclude that theelin should be limited to the smallest total dose compatible with good results. The use of theelin in oil or in suppositories with adjuvant local treatment in cases with recurrences or those that do not respond, offers the most satisfactory form of treatment for gonorrheal infections of the lower genital tract.

Hypoglycemia in Infancy and Childhood.—James G. Kramer.—Ohio State M. J. 33: 749 (July) 1937. (Author's Summary).

The symptoms of hypoglycemia have been named and classified. Bizarre nervous disorders are the usual adult manifestations, while children are prone to have gastro-intestinal upsets followed by convulsions. No doubt, many nervous and neurotic people are suffering from low blood sugar. Symptoms of these patients occurring from a prolonged fast or exercise, especially if relieved by the taking of food, are very suggestive of hypoglycemia. The etiological factors have been outlined, enumerated and discussed. The multiplicity and variety of factors that can influence carbohydrate metabolism are striking. Six cases are reported. Three had convulsions as the predominating symptom; one had extreme lethargy; another acute coma; while the last showed abnormal behavior patterns with tantrums. The cause of the symptoms varied; one was produced by sugar starvation, the result of vomiting and fever; one had a liver unable to mobilize sugar; another had a kidney that filtered out sugar too readily. The etiological factors in the other cases could not be determined exactly. Relief in the acute stages of hypoglycemia can be obtained by the administration of adrenalin and sugar. Chronic states can usually be relieved by frequent feeding.

Comment: The above article indicates that the author has very thoroughly worked up and established his diagnosis in these cases. It has occurred to me that probably a great many similar cases have become confused and diagnosed as some of the so-called gastrointestinal allergies. Hence, the necessity for a thorough examination, including a very careful laboratory analysis, to firmly establish the proper diagnosis in such cases.

Ultraviolet Radiation of Erysipelas.—J. G. Jenkins.—Arch. Physical Ther., X-Ray and Radium 18: 363 (June) 1937. (Author's Summary).

1. Ultraviolet radiation for erysipelas has proved superior to other remedies. 2. The temperature is reduced to normal in a shorter time than by any other method. 3. After the first application, the overwhelming majority of patients are free of pain. 4. The time of hospitalization is shortened. 5. Complications are rare. 6. The mortality rate is lower than that of any other method of therapy.

Comment: While we may not agree altogether with some of the positive statements in regard to the efficacy of ultraviolet radiation in the treatment of erysipelas, yet we are convinced that the author is eminently correct as to its being a valuable means of treating erysipelas. Since the recent advent of some of the newer remedies, such as prontosil. prontolyn or sulfanilamide we think that they deserve a very prominent place among the therapeutic measures in the treatment of erysipelas.

In a recent review of some of the literature in regard to the treatment of erysipelas, it is noted that in the St. Louis Childrens Hospital, nine cases of erysipelas were treated with sulfanilamide with favorable results and in the Babies' Hospital, New York City, favorable results were found in the treatment of erysipelas with sulfanilamide. At the New Haven Hospital, sulfanilamide was used in 60 cases against the *Beta* hemolytic streptococcus infection with favorable results in the treatment of erysipelas.

INTERNAL MEDICINE

L. J. Clark, M.D., Vicksburg

With the approaching pneumonia season it seems timely to mention a few valuable accomplishments of specific serum treatment in lobar pneumonia.

I refer you to a most instructive article in the September issue of the *Annals of Internal Medicine,* by Benjamin, Blankenhorn, Rueggsegger and Senior, of Cincinnati. This study was also presented at the St. Louis meeting of the American College of Physicians, April 21, 1937.

Of 485 typed cases of lobar pneumonia at the Cincinnati General Hospital during a 16 months' period, 66 per cent were types for which therapeutic serum is available. Included was a series of Type 1 cases in which the mortality of patients receiving serum in the first 96 hours of the onset of the disease was 4.1 per cent. In a comparable series 26.5 per cent of non-serum treated patients died. Similarly stricking results were shown in much smaller groups after the use of specific serum in cases with Types VII and VIII infections. Specific serum treatment of all patients with Types I. II. V, VII, VIII, XIV and XVIII pneumococci seen within 96 hours onset resulted in a death rate of 9.3 per cent. Of the group not treated with specific serum 27 per cent died.

Whenever any such type of treatment is mentioned the question is always asked, "How can we doctors who do not have a laboratory at our disposal type out these cases?" Also, "Knowing as we do that pneumococcus pneumonia more frequently occurs in poor people who cannot afford the cost of serum, how can we treat these patients?"

In answer to the first question, my opinion is that we are facing a similar problem to that we had when diphtheria antitoxin was introduced. How many physicians in Mississippi now fail to get busy, take a throat swab in a suspicious case, get to a laboratory for a report, and quickly administer serum? In fact today the physician may be considered liable who should neglect such a case. Laboratory facilities are available in nearly every county and the new typing method of Neufeld makes it very simple for almost any physician possessing a microscope to quickly determine types in the majority of cases.

In answer to the second question, the cost of the proper amount of serum is a problem, but certainly it is just as important to prevent a death from pneumonia as it is to do an operation to prevent a death from acute appendicitis. The cost of antipneumococcus serum should not exceed the cost of such an operation.

Certainly the advances made in recent years on specific serum treatment of lobar pneumonia have been very conclusive and, in my opinion, are here to stay and progress.

NEURO-PSYCHIATRY

C. D. Mitchell, M.D., and Estelle A. Magiera Whitfield

Review of the Methodical Use of Hypoglycemia in the Treatment of Psychoses.—Manfred Sakel.—Am. J. Psych.

This article was translated from the German by Joseph Wortis, Harlem Valley State Hospital, and read at the annual meeting of the American Psychiatric Association at Pittsburg, Penn.

The hypoglycemia treatment was first used in the abstinence treatment of morphine addicts. The author observed certain character changes in these psychopaths. Those who were markedly introverted, even after mild doses of insulin, became extremely friendly, accessible, and extroverted. The success of this treatment in addicts suggested the possibility of using it in other excited states, especially in schizophrenics.

From the observation of 300 cases which the author has treated he has evolved a working hypotheses, that insulin diminished the activity of the nerve cell. The hypoglycemia blockades pathways which are most active at a given time, so that the reactions to the same stimuli now come through pathways which have been inactive. To illustrate this, the patients who were previously confused became lucid for a short time at first; hallucinated patients lost their hallucinations; excited ones grew calm; stuporous ones were aroused; paranoids lost their delusions and ideas of reference. As soon as the hypoglycemia was terminated, the patients lapsed into their psychotic states. The author believes that the hypoglycemic state eliminates and inhibits that portion of consciousness in a psychotic which is most active at the time (psychoses), with the result that the other portion (normal), formerly repressed, now rises to the surface and becomes dominant, even if only for a short time. Repeated hypoglycemic states produce a permanent dominance of the repressed consciousness (normal).

Technique

The procedure is divided into four phases: Phase I. The fasting patient is given from 15 to 50 units of insulin, increasing it daily by 5 to 20 units until the shock dose is reached. The shock dose may range anywhere from 15 to 450 units. Whether or not any reaction results from the insulin, about 200 grams of sugar should be given. Phase II. Shock Phase: The shock dose is the amount of insulin which will produce deep coma, with change in reflexes from normal to pathological, and finally the disappearance of all reflexes when deep coma results. This coma with an areflexia (loss of reflexes) results within four or five hours after one injection. This shock dose is given from 3 to 6 times a week until the desired results are obtained. If after 50 injections, patient shows no improvement, discontinue the treatment. During this phase danger symptoms may arise, such as collapse, Cheyne-Stokes breathing, sterorous breathing, continuous vomiting, or epileptic attacks. The doctor must be ready to meet any arising emergency. Phase III. At least one to three days of rest are allowed every week after a patient has had several physical manifestations of shock. Phase IV. This phase may be omitted in chronic cases. Patient is given a fraction of shock dose for about eight days, but the marked hypoglycemia reactions are avoided.

The insulin is always given fasting, and is interrupted after four or five hours of deep coma, by the administration of sugar, either by passing a nasal tube into the stomach, or by intravenous injection of glucose. It is well to give as many grams of sugar as patient has had units of insulin. The author mentions that the blood sugar level, regardless of the amount of insulin given, does not drop beyond a certain level. He further states that the neurological symptoms of shock will not depend on any one blood sugar.

This treatment was first instiuted only in cases of recent origin (six months to one year), but after more experience with chronic schizophrenics it was given to those with an apparent reintegration of personality. The author reports very gratifying results. He divides the case material into three groups: 1. Cases of less than six months duration; 2. Cases of less than 1½ years duration; 3. Cases over 1½ years duration. The results obtained were divided into three main headings:

1. Full remissions: patients who were symptom free, had full insight into their illness, were able to return to their former occupations, and had no perceptible changes in personality.
2. Good remissions: those who were symptom free, were able to return to their work, but had some change in personality.
3. Social remissions: more or less improved, but not included in the successfully treated cases.

Forty per cent of chronic cases showed improvements classified in 1 and 2. Eighty per cent of recent cases showed remissions as classified in 1 and 2 above.

MISSISSIPPI SOCIAL HYGIENE ASSOCIATION

The Lauderdale County Medical Society has sponsored an organization as the Mississippi Social Hygiene Association, with the purpose of stamping out syphilis in Mississippi. This Society is inviting to its first medical program, which will be for doctors only, the doctors of Mississippi. It will be presented by the Postgraduate Division of Tulane University on Tuesday, November 4, at 2:00 p. m. The program as announced:

1. Diagnosis of Syphilis.—James K. Howles, M.D., Assistant Professor of Dermatology and Syphilology, Louisiana State University, School of Medicine.
2. Syphilis as a Complication of Pregnancy and Control of Prenatal Syphilis.—Edward L. King, M. D., Professor of Obstetrics, Tulane University of Louisiana, School of Medicine.
3. Fundamental Treatment of Syphilis.—Martin T. Van Studdiford, M.D., Assistant Professor, Clinical Dermatology, Tulane University of Louisiana, School of Medicine.
4. The Diagnosis and Treatment of Gonorrhea.—Edgar Burns, M.D., Assistant Professor of Clinical Urology, Tulane University of Louisiana, School of Medicine. (Illustrated with lantern slies.)

This program is practically a resume of the postgraduate course on syphilis and gonorrhea now being given in the state under the auspices of the Committee on Postgraduate Medical Education and the Postgraduate Division of Tulane University.

The Lamar Hotel in Meridian will be headquarters for this meeting.

The invitation is issued by T. G. Cleveland, M.D., Vice-President and Chairman of Medical Division; T. L. Bennett, M.D.; and A. C. Bryan, M.D.

The officers of the Mississippi Social Hygiene Association are Hon. Thomas L. Bailey, President; T. G. Cleveland, M.D., Vice-President; Andrew Gainey, Secretary; and D. V. Galloway, M.D., Corresponding Secretary.

MISSISSIPPI STATE NURSES' ASSOCIATION

Greenville, Miss., Nov. 8 and 9, 1937

Convention Theme: "Service."

Program

Monday, Nov. 8-9 a. m. Opening Business Session.

2:00 p. m. Hospital and School of Nursing Section.

The Contribution of the School of Nursing to the Community.—Mrs. Sam Owens, Electric Mills.

Extracurricular Activities.—Miss Celestine Pratt, Biloxi.

The Individual Responsibility of the Nurse to the Profession in Mississippi.—Mrs. Alice Finley, Tupelo.

Tuesday, Nov. 9-9 a. m. Public Health Section:

Greetings.—Dr. Felix J. Underwood, Executive Officer, Mississippi State Board of Health, Jackson.

Syphilis Control and Its Relation to Public Health.—Dr. D. V. Galloway, Director, Lauderdale County Health Department, Meridian.

The Graduate Nurse as a Health Messenger.—Opal L. Regan, R.N.

Conduct of the Poliomyelitis Clinic in Jackson.—Elise Smith. R.N.

2:00 p. m. Private Duty Section:

What the Public Expects of the Private Duty Nurse.—Miss Delores Schemmel, Greenville.

Hobbies.—Miss Ruth Millsaps, Vicksburg.

The Harmon Plan for Advancement of Nursing.—Speaker to be announced.

A varied and interesting entertainment program has been perpared for the visitors and includes the following:

Sunday, Nov. 7:
8:00—Reception—Gold Room,, Hotel Greenville.

Monday, Nov. 8:
12:30—Red Cross Luncheon. — Miss Zella Bryant, American Red Cross, Guest Speaker.
4:30—Auto ride around city.
5:30—Tea—Country Club.
8:00—Banquet—Hotel Greenville.
10:00—Dance.

Tuesday, Nov. 9:
12:30 Private Duty Luncheon.

Mrs. Alma H. Scott, Director, Headquarters, American Nurses' Association, New York City; Miss Zella Bryant, American Red Cross; Miss Dora Cornelisen, American Journal of Nursing, New York City, and other nursing leaders will be guests of the association.

Greenville, Mary E. Dorsey, R.N.
Sept. 20, 1937. President.

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY

Nov. 10, 2 to 10 p. m.

All Physicians Invited

A. J. Powell,President,
N. C. Knight, Clarksdale, Secretary and Treasurer.

Program

2 p. m.

1. Review of Appendicitis.—C. F. Varner. Memphis.
2. Upper Respiratory Infections in Infants

and Children.—W. P. Warfield, Clarksdale.

3. Our State Medical Association.—W. L. Little, Wesson, President, Mississippi State Medical Association.

4. The Economic and Social Side of the Small Town and Country Physician.—Joe. E. Green, Laurel, President-Elect, Mississippi State Medical Association.

Recess

7 p. m.

Banquet—Alcazar Hotel—$1.00 per plate.

5. Pyelitis in Pregnancy (with stereoscopic illustrations).—Charles S. Paddock, Memphis.

Adjournment

Clarksdale, Oct. 14, 1937.

CENRAL MEDICAL SOCIETY

In a former announcement in regard to the December meeting of the Central Medical Society, it was stated that we would have the Tulane factulty for the December program. In order to have the Tulane faculty with us at that time, we found that we conflicted with the meeting of the Issaquena-Sharkey-Warren Counties Medical Society meeting in Vicksburg, the second Tuesday in December. Rather than do this, the program committee, decided to cancel our meeting so far as the Tulane faculty was concerned, but instead, have our regular meeting the first Tuesday in December, so that we will not conflict with the meeting in Vicksburg.

At our meeting the first Tuesday in December, we are going to have the officials of the Mississippi State Medical Association with us, Dr. W. L. Little, president, Dr. Joe E. Green, president-elect, and the Council of the Mississippi State Medical Association. There will be two papers, one by Dr. Jack Barksdale, Jackson, and one by Dr. John Darrington, Yazoo City. At this meeting the Central Medical Society will elect its officers for 1938. A cordial invitation is extended to all members of the Mississippi State Medical Association to attend our meeting of the Central Medical Society the first Tuesday in December.

The September meeting of the Central Medical Society was a great success! The Medical Department of the University of Tennessee did itself proud. The program was enjoyed by all those who were present. There were over two hundred who attended this meeting. We have personally congratulated the members of the faculty of the University of Tennessee on this most interesting program, but we now publicly acknowledge our appreciation for the splendid program which they gave us.

Sincerely your friend,
Harvey F. Garrison, Chairman,
Program Committee.

Jackson, October 5, 1937.

COAHOMA COUNTY MEDICA LSOCIETY AND CLARKSDALE HOSPITAL MEDICAL STAFF

The Coahoma County Medical Society and Clarksdale Hospital Medical Staff resumed meetings September 8, 12 o'clock, in the downstairs dining room of the Alcazar Hotel. Immediately after lunch the president called the meeting to order. The minutes were approved as read.

Dr. LeRoy Wilkins, chairman of the relations committee reported that the practices in general at the hospital were improving but some of the doctors are still lax in writing up their charts. Dr. Wilkins asked them to improve the writing of their charts.

Dr. N. C. Knight, the county health officer, announced that one conviction for violation of the medical practice act had been secured since the society last met. He also announced that Dr. Anderson would be in Clarksdale tonight to review films and discuss his findings of the patients that he examined in the clinic last week.

The secretary then announced that dues for the latter half of the year were due at this time and everyone present paid up.

Dr. Brandon then brought up the question of providing syphilitic treatment for those persons who are responsible for themselves and for people who have someone that is responsible for them, at a price lower than the present price, provided the patient takes treatment at least a year. He made a motion that a committee be appointed to study the problem and report at the next meeting. Motion seconded and carried. The president then appointed the following committee: Drs. W. H. Brandon, T. G. Hughes, and S. D. Robinson.

A motion picture entitled "Edema—Cardiac and Renal" was shown.

There being no further business the society adjourned.

Clarksdale, N. C. Knight,
Sept. 18, 1937. Secretary.

COAHOMA COUNTY MEDICAL SOCIETY AND CLARKSDALE HOSPITAL MEDICAL STAFF

The Coahoma County Medical Society and Clarksdale Hospital Medical Staff were called to order October 13 at 12 o'clock in the private dining room of the Alcazar Hotel, in Clarksdale. The following visitors were present: Drs. Duane Carr, D. C. McCool, and Jimmie Biles of Memphis; Dr. J. P. Ward of Aberdeen and Charleston.

The minutes were approved as read. Dr. Brandon's committee on syphilis reported that it had not met and consequently had no report to make. The matter was discussed further by Brandon, Hughes, Slack and Levy, and it was decided that the committee would hold over until next meeting.

Dr. Brandon then volunteered to read a paper at the next meeting.

A discussion of the bequests to the Clarksdale hospital was entered into generaly, with no definite action taken.

Dr. Brandon then made a motion that a committee be appointed to look into the feasability of the Clarksdale Hospital affiliating with the State Hospital Commission so as to take "state-aid" patients, and improving the hospital in other ways. Motion seconded by Levy and carried. The president appointed the following committee: T. M. Dye, J. A. Slack, and W. H. Brandon.

A motion picture was then shown, entitled "Collapse Therapy in Pulmonary Tuberculosis." Discussed by Dr. Carr.

There being no further business the Society adjourned.

Clarksdale, N. C. Knight,
Oct. 14, 1937. Secretary.

COAST COUNTIES MEDICAL SOCIETY

The Coast Counties Medical Society was formed by the amalgamation of the Harrison-Stone-Hancock Counties Medical Society and the Jackson County Medical Society, bringing all of the counties in the ninth district into one medical society. This action was taken shortly before the state meeting in Meridian and was ratified at that meeting.

The officers are Dr. E. B. Van Ness, Gulfport, president; and Dr. D. L. Hollis, Biloxi, secretary-treasurer. The meetings alternate for the most part between Gulfport and Biloxi with occasional meetings in the other counties. The Society meets at night on the first Wednesday of each month.

Pascagoula, R. G. Lander,
Oct. 5, 1937. County Editor.

DELTA MEDICAL SOCIETY

The 26th Semi-Annual Meeting of the Delta Medical Society will be held at the Memorial Building, Greenwood, Wednesday, October 13, beginning at 2:00 p. m.

Business Session

Invocation—Dr. Ed Caswell.

Welcome Address—Mayor Ray Latham.

Announcements.

Order of Business.

Scientific Session

Varicose Veins.—F. M. Sandifer, Jr., M.D., Greenwood.

Discussed by Drs. R. B. Yates, Greenwood, and L. H. Hightower, Greenwood.

The Problem of Acute Abdominal Pain.—E. R. Nobles, M.D., Rosedale.

Discussed by Drs. O. H. Beck, Greenville, and L. L. Beall, Cleveland.

Operative Treatment of Carcinoma of the Breast—Moving Pictures.—H. A. Gamble, M.D., Greenville.

Discussed by Drs. E. T. White, Greenville, and J. A. Beals, Greenville.

Obstetrics in General Practice.—G. J. Mancill, M.D., Indianola.

Discussed by Drs. T. J. Barkley, Isola, and U. S. Wasson, Moorhead.

Immunization Against Communicable Diseases.—J. W. Barkley, Belzoni.

Discussed by Drs. R. E. Wilson, Greenwood, and H. B. Cottrell, Indianola.

Sterility Study—Using Rubin Test.—Gilbert F. Douglas, M.D., Birmingham, Ala.

Social Session. 7:00 p. m.—Barbecue and Dance at Country Club.

E. T. White, Greenville,
F. M. Acree, Greenville,
Greenville, President.
Oct. 7, 1937. Secretary

FRANKLIN COUNTY MEDICAL SOCIETY

The Franklin County Medical Society met October 5 in Bude, at the home of Dr. and Mrs. C. E. Mullins. Mrs. Mullins again demonstrated her ability as a wonderful cook and most gracious hostess. A few minutes before lunch was served, one of the doctors present swore he had appendicitis; but, after eating about *three times* as much as any one man *should* eat, he said his appendix was entirely easy! (Those who actually have this disease are hereby warned *not* to follow this doctor's example).

Those present were: C. A. Everett and J. C. McGehee, Bude; L. Costley, Meadville; and S. R. Towns, Quentin.

Following the luncheon, the following officers were elected for the ensuing year: President, C. A. Everett; Vice-president, S. R. Towns; Secretary and Treasurer, L. Costley; delegate to State Medical Association, C. A. Everett; alternate delegate to State Medical Association, S. R. Towns.

The next meeting, in January of next year, is to be held at Quentin, with this editor and his wife.

Quentin, S. R. Towns,
Oct. 6, 1937. County Editor.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

A regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, October 12 and after a supper served at 7 p. m., was called to order by the president, Dr. G. C. Jarratt, Vicksburg, with fourteen members and ten guests present.

Papers and Discussions:—Surgery.—Dr. W. H. Parsons, Vicksburg, Chairman.

1. The Use of Living Fascial Transplants in Certain Types of Herniae—Dr. J. L. McGehee, Memphis, Tennessee.

Discussed by Drs. A. Street and W. H. Parsons. Dr. McGehee closed.

2. Psoas Abscess.—Dr. Nathan B. Lewis, Vicksburg.

3. Case Report—Multiple Enlarged Joints. —The Staff of the Mississippi State Charity Hospital.

Dr. Alfred Joseph Messina and Dr. James L. Hall, Vicksburg, were elected to membership.

The annual meeting of the society to be held December 14, at Vicksburg, was discussed and plans made. The essayists for the meeting will be Dr. W. D. Haggard, past president of the American Medical Association and Professor of clinical surgery, Vanderbilt University School of Medicine, Nashvile, Tenn.; and Dr. Groesbeck F. Walsh, chief of the Medical Service, Employees Hospital, Tennessee Coal, Iron and Railroad Company, Fairfield, Alabama.

As for a number of years past and as a special feature of the meeting the past presidents of the Mississippi State Medical Association will be asked to hold a reunion as guests of this Society. The officers of the Mississippi State Medical Association and of the Louisiana State Medical Society will be asked to be honored guests. A general invitation will be extended to all members of the two associations. There will be open house during the afternoon and a banquet at night.

A letter from Dr. Harvey F. Garrison, Chairman of the Program Committee, Central Medical Society, was read stating that the meeting of the Central Medical Society which was formerly announced for the same date had been very graciously changed in order not to conflict with the meeting of this Society. The society is most appreciative of this action.

The next meeting of the Society will be held on November 9.

The subject will be "General Practice" and Dr. W. A. Smith, Panther Burn, will be chairman. The program includes: The Practice of Medicine, Dr. E. B. Stribling, Rolling Fork; Experience With Hydrophobia Vaccine, Dr. W. A. Smith, Panther Burn; and the Use of Theelin in the Menopause with Report of One Case.—Dr. H. S. Provine, Tallulah, Louisiana.

NORTH MISSISSIPPI MEDICAL SOCIETY

The quarterly meetaing of the North Mississippi Medical Society was held at University, Wednesday, October 20, beginning at 1:30 p. m.

The program as announced by the secretary, Dr. A. H. Little, Oxford, was as follows:

Invocation.—Rev. F. M. Purser.

Reading of minutes and other business.

Dr. W. L. Little, President of the Mississippi State Medical Association, presented by Dr. P. W. Rowland, Past President of the Mississippi State Medical Association.

Dr. T. M. Dye, Secretary of the Mississippi State Medical Association, presented by Dr. John C. Culley, Past President of the Mississippi State Medical Association.

Scientific Section.—Ten minute talks by the faculty of the University of Mississippi School of Medicine, Dr. B. S. Guyton, Dean, presiding:

1. Pregnancy Tests.—Dr. J. B. Looper, Department of Anatomy.
2. Amebiasis.—Dr. H. J. Gondolf, Department of Bacteriology.
3. Physiology of the Stomach in Practice.—Dr. W. F. Potter, Department of Physiology.
4. The Marihuana Drug Habit.—Dr. R. P. Walton, Department of Pharmacology.
5. Tuberculosis and Cancer.—Dr. R. M. Moore, Department of Pathology.
6. Laboratory Diagnosis in Tuberculosis.—Dr. J. R. Simms, Department of Bacteriology.
7. Infection of the Hand.—Dr. A. R. Buchanan, Department of Anatomy.
8. Studies in Allergy.—Dr. A. H. Little, Department of Medicine.
9. Episiotomy.—Dr. J. C. Culley, Department of Clinical Surgery.
10. The Acute Gallbladder.—Dr. E. S. Bramlett, Department of Clinical Surgery.
11. The Differential Diagnosis in Biliary and Renal Calculi.—Dr. G. A. Brown, Department of Clinical Surgery.
12. Emergencies in Heart Disease.—Dr. F. E. Linder, Department of Clinical Medicine.
13. Trichophytosis.—Dr. E. V. Bramlett, Department of Clinical Medicine.
14. Acute Sinusitis.—Dr. E. W. Green, Department of Research Anatomy.

Dr. G. H. Wood, Batesville, is president of the Society.

COPIAH COUNTY

Dr. J. C. McGuire, Copiah County health officer, is now at Nashville taking a three months' special course.

Hazlehurst, R. B. Zeller,
Sept. 21, 1937 County Editor

DESOTO COUNTY

The Sept. 14 issue of *The Commercial Appeal* carried a section of 14 pages by the Memphis and Shelby County Medical Society. To show the unselfishness of these doctors, the articles on different medical subjects are signed, "written by a member of the Memphis and Shelby County Medical Society." These articles are informative and helpful to the physician and laity alike.

This society had a meritorious exhibit at the Mid-South Fair and a large number of people were attracted to it.

Dr. C. M. Hammond, Walls, had his respirator on display; it is a marvelous apparatus and elicited much comment. The doctor has devoted much of his time and talent to this machine and we hope he can receive the deserved awards for originating and perfecting his respirator. This good doctor was in an automobile accident recently; a collar bone and two ribs in an awry condition.

Do not forget the Southern Medical Association in New Orleans. The trip, program and city are all attractive and will be beneficial.

There are tricks in all trades and the law is not exceptional in the hypothetical question.—Robert Carothers in S. M. A. Journal Sept. 1937.

The often repeated quotation, "Is there no balm in Gilead? Is there no physician there? Why then is not the health of the daughter of my people restored?"—Jeremiah 8-22.

The weather is fine, the roads are good and a bountiful crop is being harvested; we trust that the hard worked physician will be able to have good collections.

Dr. Malcolm B. Jernburg, formerly of Walls, is now located at Hollywood. The doctor lived at this place previously.

Rt. 4, Memphis, Tenn. L. L. Minor,
Oct. 11, 1937. County Editor.

GRENADA COUNTY

Dr. R. A. Clanton has joined the Grenada Clinic, making a total of five doctors in the Clinic now, namely, Dr. R. A. Clanton, Dr. J. K. Avent, Dr. J. S. Sharp, Dr. F. S. Hill, Dr. S. B. Caruthers. Bids will be let Sept. 22 for the erection of the new and up-to-date clinic building, which will be located in the heart of the city with new and modern equipment throughout.

Miss Eva Hickman, formerly of the Stingily Laboratory, Meridian, is now with the Grenada Clinic as technician.

Grenada, J. K. Avent.
Sept. 18, 1937.

HUMPHREYS COUNTY

Dr and Mrs. Jimmie Taylor left for their home in New York today after a ten days' visit with their mother, Mrs. H. F. Jon of Belzoni.

Congratulations are being showerel upon Dr. and Mrs. J. N. Mecklin, Louise. They are the proud grandparents of a wee granddaughter who arrived last month to make her home with Mr. and Mrs. Lawrence Mecklin.

Dr. and Mrs. J. A. Waddlington visited their son and daughter, Dr. and Mrs. Eckford Waddlington, in Flora recently.

We appreciate very much the splendid work of Dr. William D. Hickerson in the chest clinic recently held in our county.

Belzoni, J. W. Jackson,
Oct. 4, 1937. County Editor.

LEFLORE COUNTY

There were fifteen doctors present at the regular meeting of the staff of the Greenwood Leflore Hospital, Thursday night, Sept. 2. Drs. Lucas, Brister,Jr., Yates, and Sandifer, Jr., reported interesting cases. The treatment of hepatitis, tetanus, vincent's infection, and erysipelas were discussed.

The course in pediatrics given by Drs. R. A. Strong, professor of pediatrics, and Don Julian Graubarth, assistant professor, Tulane University, Sept. 7-10 was well attended and much enjoyed.

Drs. Wilson and Lucas, Greenwood, and Shurley, Money, attended the meeting of the Central Medical Society in Jackson, Sept. 7.

Among the visiting doctors to Greenwood during the month were seen Drs. M. D. Adams, Memphis, Tenn.; Bray, Birmingham, Ala.; Henry Boswell, Sanatorium; Bostick, Indianola; J. C. Ward, Aberdeen; Robert Jackson, Belzoni; C. D. Mitchell, Whitfield; and E. W. Holmes, Winona.

Dr. Henry Boswell, Sanatorium, addressed the Kiwanis Club, Greenwood, Sept. 9, and Dr. C. D. Mitchell, Superintendent, Mississippi State Hospital, Whitfield, also spoke to the club Sept. 23. Both addresses were splendid.

Dr. and Mrs. W. E. Denman attended the meeting of the State Tuberculosis Association at Jackson, Sept. 17.

Dr. and Mrs. W. B. Dickins and daughter, Miss Marion, visited relatives in Marks, Sunday, Sept. 19.

Dr. T. Y. Fleming, Minter City, was a patient in Methodist Hospital, Memphis, Sept. 20.

Dr. Fred Sandifer went to Coffeeville, Sept. 24 to attend the wedding of Mr. Frank Everett of this city to Miss Clyde Bryant of Coffeeville. He was one of the ushers.

Dr. and Mrs. L. B. Otken and daughters went to New York on the Mississippi special train for the American Legion Convention in that city, Sept. 19-24.

Greenwood, W. B. Dickins,
Oct. 2, 1937. County Editor.

PRENTISS COUNTY

The Northeast Mississippi Hospital is erecting a tuberculosis unit and has the brick work done. This will be for Prentiss County patients. It will have 8 beds with room for x-ray, laboratory examination and treatment. This has been a long and much needed addition and will be much appreciated.

The Prentiss County Medical Society had its July meeting with Dr. and Mrs. R. B. Caldwell on their beautiful lawn. This is an annual event and the wives as well as the doctors look forward to this occasion with much interest. The Caldwells really know how to entertain. They have two fine boys and a lovely brick home.

We had a good meeting at Aberdeen on the 21st of last month with the Northeast Mississippi 13 Counties Medical Society. It was well attended and there was a splendid program with every essayist present. The Monroe doctors imparted plenty of that Southern chivalry and hospitality. We are going back.

Dr. L. L. McDougal, Jr., wife and baby will return from Providence, Rhode Island, next week. He has just completed four and one-half years' intern work. He plans to locate at Tupelo.

Several of our county doctors, including the writer and wife, expect to go to Tupelo next Sunday for the opening of the new $300,000 hospital. It is something of which Mississippi can well afford to boast.

The excessive rains damaged the cotton and caused the collections to be of the panic kind but we have all had good health and enjoyed a rest.

Prentiss County news has been lagging for a few months but we hope to do better in the future.

Booneville, L. L. McDougal, Sr.
Oct. 1, 1937. County Editor.

HOSPITAL STAFF TRANSACTIONS

EAST MISSISSIPPI STATE HOSPITAL

Dr. H. F. Tatum, member of the medical staff, has just returned from his vacation on the coast, and reports a grand time.

Dr. Cavanaugh and Mrs. Cavanaugh went fishing on the Florida Coast, and report a grand time. He brought back the fish, as evidence.

Dr. J. S. Hickman and wife are attending the meeting of the Southern Psychiatric Association at San Antonio, Texas.

Will state that we have regular staff meeting six days in the week. This is for diagnostic purposes and a full report of all happenings of the previous day, is given, such as accidents, serious sickness, deaths, admissions, paroles or discharges, and a full record of this is kept on file.

The appropriation for this institution has been cut for the last three sessions of the legislature, and admissions of patients and the demands for service in general are increasing. Let's see if we cannot do something about this. I am sure if the hospital at Whitfield, as well as this hospital could secure as much as fifty-five cents per capita per patient per day, we would be able to do something worthwhile. For instance, there might be some mental hygiene practiced, more sterilizations done, and last, but not least, feed and clothe the patients as they should be. Both hospitals are eminently and equally qualified to administer such treatments necessary, provided we had the wherewith to put the work over.

Meridian, J. S. Hickman,
Oct. 5, 1937. Superintendent.

GRENADA HOSPITAL STAFF MEETING

The monthly staff meeting of the Grenada Hospital was held at the Grenada Hospital, Grenada, at 7 P. M., Sept. 14. All members of the staff were present. No papers were given at this meeting but there were several discussions of cases in hospital. Plans made for bigger and better meetings this fall and winter, the next meeting to be held Oct. 12.

We are glad to report that there have been no new cases of polio in the county for some weeks past.

Grenada, J. K. Avent,
Sept. 18, 1937.

KING'S DAUGHTERS AND SONS EMERGENCY HOSPITAL, BAY ST. LOUIS

The staff held its meeting Oct. 3, at the hospital and had a fine meeting.

Our doctors are doing good work with so

many accident cases, one or two most every day. It keeps Drs. C. L. Horton, A. P. Smith and M. J. Wolfe very very busy.

Under the supervision of Dr. M. J. Wolfe, we had a Bradford frame made for a patient with a compressed fracture of second lumbar vertebra. Before we had to send cases of that nature to Gulfport or New Orleans. But with our new x-ray machine and the cooperation of our doctors, I know there will be no limit to the good these fine men are doing.

Only yesterday, Oct. 7, we gave our first blood transfusion to a patient of Dr. M. J. Wolfe's. Our hospital is small but we are proud of it.

Dr. Smith's daughter, Mrs. S. Clark, has just left for Oklahoma after a two weeks' visit to his home on South Beach Boulevard.

Dr. and Mrs. J. Wolfe have moved into their lovely brick home on Central Avenue.

Bay St. Louis,
Oct. 8, 1937.

Mrs. C. E. Craft,
Superintendent.

ROSEDALE BOLIVAR COUNTY HOSPITAL DEDICATION

The City Fathers who sit in state
Affairs of importance to administrate
Have decided to have a grand celebration
The occasion for which is Hospitalization.
The doctors we're asking from far and near
To come and see our Hospital here.
Its all brand new and quite complete
From shingled head to concrete feet.

So, on Tuesday evening at six o'clock
Come to the Hospital—don't even knock.
Miss Julia Stout will be at the door
You needn't mind—she's met you before.
After inspection tour all around
Escorted by Council and Mayor of town
From well fitted room for operations
To the Charity Wards for poor relations.—

You are invited to meet at the stroke of seven
At Walter Sillers Park where we'll endeavor to leaven
Your thoughts of the lame, the sick and the blind
With a bit of cheer and a cup of wine.
A feast on the Banquet board will be spread,
Fit for a king, or to raise the dead.
So come to our party— a Hospital Bee
We hope yuo'll come, but please R.S.V.P.!!

Sept. 28, 1937

Rosedale,
Sept. 27, 1937.

City of Rosedale,
Doris D. Goza, Clerk.

VICKSBURG SANITARIUM STAFF MEETING

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held, Monday, October 11, and after a supper served at 6:30 P. M., was called to order by the president, Dr. George M. Street, with eleven members and one guest present. The program:

Reports from the Records Department and Analysis of the Work of the Hospital.

Report of Vital Statistics.—Dr. F. Michael Smith, Director, Warren County Health Department.

Special Case Reports:

1. Carcinoma of Cervix Uteri.—Dr. G. M. Street.

Discussed by Drs. L. S. Lippincott, J. A. K. Birchett, Jr., and E. H. Jones. Dr. Street closed.

2. Tuberculosis of Kidney.—Dr. J. A. K. Birchett, Jr.

3. Congenital Diaphragmatic Hernia.—Dr. G. C. Jarratt.

Discussed by Drs. George M. Street and J. A. K. Birchett, Jr. Dr. Jarratt closed.

Demonstration of selected radiographic studies: Carcinoma of the Bony Pelvis (Metastatic); Arthritis of Cervical Spine; Subdeltoid Bursitis (Two Cases); Mediastinal Tumor (Malignant); Carcinoma of the Lungs (Metastatic); Abscess of the Lung (Two Cases); Nephrolithiasis; Ureteral Calculus (Two Cases).

Three-Minute Reports of the Literature of the Month:

1. Dr. L. S. Lippincott—Treatment of Pneumococcus Pneumonia with Type Serum.
2. Dr. L. J. Clark—Dietary Deficiency In Graves' Disease and Congestive Heart Failure.
3. Dr. R. A. Street, Jr.—The Causes of Death in Premature Infants as Shown by Autopsy.
4. Dr. S. W. Johnston.—Neuro-Syphilis.
5. Dr. H. H. Johnston.—The Common Cold and Mixed Bacterial Vaccines.

Next meeting of the staff will be held Wednesday, November 10, 1937.

ABSTRACT: TUBERCULOSIS OF THE KIDNEY

J. A. K. Birchett, Jr., M. D.

Patient.—Colored, female, age 43.

Complaint.—Painful and frequent urination, with blood in urine.

History of Present Complaint.—About six months ago began to have pain over the left kidney region, and two or three weeks later noticed that the urine was bloody and began to have frequency and straining on urination. Has been having fever and sweats and has lost considerable weight. The last two months digestion has been poor and has felt very weak, and has dizzy spells. Usually has fever every day and sweats at night. There has been no cough or abnormal expectoration. For the last two or three weeks has had to urinate twenty to thirty times during the night and, at times, it is mostly bloody.

Past History.—No operations; no serious illnesses.

Family History.—Negative for tuberculosis and cancer.

Physical Examination.—Poorly nourished, fairly well-developed negro female of middle age, with a frequent desire to urinate. Temp. 100 degrees F.; pulse 120; resp. 18; blood pressure 90/70. Skin very dry and scaly. Head essentially negative. Sclerae showed evidence of anemia. Nose and throat negative. Teeth showed dental caries. Thyroid negative. Heart rapid, no murmurs. Pulse volume weak. The lungs—no rales or areas of dullness. Abdomen thin scaphoid, no palpable masses. Pain elicited over the left costovertebral angle and the course of the left ureter on deep pressure. Outline of spine was normal. Pelvic examination normal. Catherized specimen of urine mostly blood with many flocculi and much mucus.

Clinical Laboratory.—Wassermann, Kahn, and Kline and Young tests negative. Urine: blood and pus, marked; some hyaline and granular casts; 1/20 of 1 per cent albumin (by weight); no sugar. Blood: erythrocytes 3,690,000 per c. mm.; leukocytes 7,400; differential leukocyte count, lymphocytes 24 per cent, polymorph. neutrophilis 74 per cent, eosinophils 2 per cent; no malaria found.

Procedure.—In view of the history and the physical findings, we felt that we were dealing with a lesion of the upper urinary tract and bladder. Our first step was to make a differential diagnosis between renal stone with secondary infection, tuberculosis of the kidney and bladder, and malignancy. Therefore, cystoscopy was done, showing a marked cystitis with complete obliteration of the left ureteral orifice; hence, the left kidney could not be catherized. The right kidney was catherized and no blood was obtained from this side. As we were unable to gain any information from the cystoscopy in refence to the left kidney, it was then necessary to do an intravenous urogram, which showed evidence of a non-functioning left kidney, the dye appearing in the right kidney pelvis normally. The urine was examined several times for tubercle bacilli and this organism was finally found and a diagnosis was, therefore, made of tuberculosis of the left kidney and ureter, with possible early involvement of the bladder. After building the patient up by intravenous glucose, forced feeding, and rest, lavage of the irritated bladder with boric acid solution, the placing of oil in the bladder for relief of the tenesmus, and the administration of calcium intravenously to assist in control of the hemorrhage, the bladder symptoms markedly improved and, three weeks after admission, a left pararectus incision was made, the left kidney and ureter being removed. The kidney was simply a remnant, there being only a thin shall of kidney substance, which wa completely filled with caseous material. The ureter was much thickened and shortened and had pulled the bladder considerably in the region of the left ureteral orifice.

Subsequent.—The patient made a fairly normal convalescence and was discharged from the Sanitarium on the fourteenth post-operative day, with evidence of improvemest. There was still some blood and pus in the bladder but the discomfort was much less than it was at time of admission, and urination not nearly as frequent. This patient has been seen in the outpatient department since that time and her condition is steadily improving. She has gained weight and does not have the fever or sweats. There is still some little disturbance with the bladder. It is possible that the tuberculosis infection had advanced into the bladder further than ye at first anticipated, but even though it might have, we feel that the removal of the kidney and ureter was necessary to improve the general condition of the patient and that possibly the bladder infection has not advanced to any great degree.

ABSTRACT: CONGENITAL DIAPHRAGAMATIC HERNIA

G. C. Jarratt, M.D.

Patient.—White, male, age 4 months, seen in outpatient department July 25, 1937.

Chief Complaint.—Does not eat well; "wheezing" breathing.

Present Illness.—Mother states that this infant has never taken the bottle well, that is, only about half of the formula prescribed as being necessary for the infant, and this, particularly, has been worse for the past two months. The rapid grunting and, at times, asthmatic breathing, dates from the first day of life; at times, this is much worse than at others, but always present to some extent.

Birth History.—Normal cephalic delivery without forceps; no cyanosis. Weight 8¼ pounds.

Feeding History.—Breast altogether for two months, then the breast and bottle of cow's milk, water, and Karo, and now using cow's milk 10 oz., water 8 oz., dextri-maltose, 3 tablespoonfuls; 6 ounces of this formula at 4-hour intervals during day and night.

Physical Examination.—Temp. 99.4 degrees F.; weight 12 pounds, 12 ounces. Fairly well developed, but poorly nourished infant, with increased respiratory rate, and with evident embarrassment of respiration and abdominal breathing. No cyanosis.

Head: Anterior fontanel open and soft, flat occiput from posture; ears, eyes, nose and mouth, normal.

Neck; No glands or masses.

Chest: Increased respiration, rounded chest with the left side more prominent and very little excursion of the ribs of the left side. Apex heart beat at right nipple line.

Lungs: Distant breath sounds over left apex, both anteriorly and posteriorly. No breath sounds anteriorly medially, or posteriorly of left chest from angle of the spine of the scapula downward; occasional gurgling sound over entire left chest. Dullness over the left upper chest, both anteriorly and posteriorly, and hyper-resonance of lower left chest. Breath sounds on the right of the chest normal.

Heart: Apex right nipple line; no murmurs or arrhythmia.

Abdomen: Spleen and liver not palpated; no masses.

Genitalia, extremities, skin, central nervous system, normal.

Clinical Laboratory.—Blood: Hb. 83 per cent; erthrocytes 6,140,000; platelets 172,000! leukocytes, 8,800; coagulation time 1½ minutes; small lymphocytes, 58 per cent, large lymphocytes, 6 per cent, polymorph. neutrophils 32 per cent, polymorph. eosinophils 4 per cent; no malaria found. Blood Wassermann, Kahn, Kline and Young, and Eagle flocculation tests, negative.

Roentgen Ray Studies.—Flat x-ray of chest revealed an antelectasis of the left lung in its entirety, except for a small area in the upper portion. Heart was on the right side, except under the sternum. Gas bubbles in the left chest, no doubt due to intestines.

X-ray immediately after barium given by mouth shows stomach in normal position; four-hour plate following the giving of barium reveals the brium in small intestine in the whole of the left chest except in the upper apex region.

Surgery was advised for repair of the hernia, but to this date the parents have refused any surgical attempt at repair.

HONOR ROLL

The following has contributed to the Mississippi State Medical Association section of *The Mississippi Doctor* this month.

County Editors: Copiah, R. B. Zeller; DeSoto, L. L. Minor; Grenada, J. K. Avent; Humphreys, J. W. Jackson; Leflore, W. B. Dickins; Prentiss, L. L. McDougal.—6.

Societies: Mississippi Social Hygiene Association, D. V. Galloway; Mississippi State Nurses Association, Mary E. Dorsey; Clarksdale and Six Counties Medical Society, N. C. Knight; Central, Harvey F. Garrison; Coahoma County, N. C. Knight; Coast Counties, R. G. Lander; Delta, F. M. Acree; Franklin County, S. R. Towns; Issaquena-Sharkey-Warren Counties; North Mississippi, A. H. Little. —10.

Current Literature: Harvey F. Garrison; L. J. Clark; C. D. Mitchell and Estelle A. Magiera.—4.

Hospitals: Clarksdale Hospital, N. C. Knight; East Mississippi State Hospital, J. S. Hickman; Grenada Hospital, J. K. Avent; King's Daughters and Sons Hospital, Bay St. Louis, Mrs. C. E. Craft; Rosedale Bolivar County Hospital, Doris D. Goza; Vicksburg Sanitarium.—6.

Others: Maxwell E. Lapham, Felix J. Underwood, R. N. Whitfield.—3.

Grand Total.—29.

Your editors thank you!

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical
Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tennessee

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 6-3288
899 Madison Ave. Memphis, Tenn.

JOHN W. RAGSDALE, M.D.
CHESTER D. ALLEN, M.D.
327 Medical Arts Bldg.
Memphis, Tenn.
Urology and Urological Surgery

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as Applied in This Field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Phones: Off: 6-1923 —:— Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Mississippi

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Mississippi

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WILLIAM MILTON ADAMS, M.D.
Practiced Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tennessee

HENRY G. HILL, M.D.
Clinic 847 Madison Avenue
Memphis, Tennessee
Practice Limited to:
Diseases and Injuries, Bones and Joints, Cripples and Deformities, Braces and Appliances

FRANK W. SMYTHE, M.D.
Practice Limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-Surgery
Physicians and Surgeons Bldg.
Memphis, Tennessee
Phones: Off: 6-3288 Res.: 29645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tennessee

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tennessee

GILBERT J. LEVY, M.D.
Practiced Limited to Diseases of Children and Communicable Diseases
20 S. Dunlap St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tennessee

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

DR. WILLIAM F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Mississippi

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Building
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Mississippi

ROBERT H. BRUMFIELD, M.D., F.A.C.S.
General Surgery and Urology
McComb, Mississippi

DR. J. W. LIPSCOMB, JR.
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Mississippi

LAWRENCE W. LONG, B.A., M.D., F.A.C.S
410-412 Standard Life Bldg.
Jackson, Mississippi
GENERAL SURGERY
Surgical Diseases of Children

F. M. ACREE, M.D.
Greenville, Miss.

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

R. L. RONALD, M.D.
207-8 Miazza-Woods Bldg.
Meridian, Mississippi
Office Hours: 10 to 12 a. m.—3 to 5 p. m.

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians and Surgeons Bldg
(899 Madison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye. Ear, Nose and Throat
and
Bronchoscopy
Princess Theater Building
Columbus, Miss.

W. L. WILLIAMSON, M. D. F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

WILLIAM T. BLACK, M.D., F.A.C.S.
Gynecology
Medical Arts Building
Memphis, Tenn.

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg), F.A.C.S.
Genito-urinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

DOUGLAS D. BAUGH, M.D.
—CLINIC—
Diagnosis—Internal Medicine
First National Bank Building
Columbus, Miss.

DR. H. RANDOLPH UNSWORTH
Practice Limited to Nervous and Mental Diseases
Hours: 1 to 5, by appointment.
10 to 12 on Saturdays
Office: 819 Maison Blanche Building.

WALTER W. ROBINSON, M.D.
Crisler Clinic
1291 Union Avenue
Memphis, Tennessee
Specializing in
PATHOLOGY
ROENTGEN
DIAGNOSIS and THERAPY

DR. J. CASH KING
formerly at John Gaston Hospital
and University of Tennessee
announces the opening of his office
for the practice of RADIOLOGY
902 Madison Avenue
Memphis, Tenn. Telephone 6-7460

SHIELDS ABERNATHY, M.D., F.A.C.S.
HOWARD H. ASHBURY, M. D., Oncologist
CLINIC
For General Surgical and
Neoplastic Diseases
Complete Modern Radiological Equipment
1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING
I. G. Duncan, B.S., M.D., F.A.C.S.
J. S. Fleming, M.D.
GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION
Suite 1500-06 Commerce Title Bldg
Memphis, Tennessee

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS, Clinical Pathology
MARJORIE WADE, Bacteriology.

THE WOMAN'S CLINIC
W. T. Pride, M.D.
Carey Bringle, M.D.
James M. Brockman, M.D.
Gynecology Obstetrics
1460 Madison Avenue Memphis, Tenn.

WILLIAM T. SATTERFIELD, M.D., F.A.C.S.
General Surgery
McLemore Clinic
919 E. McLemore Avenue
Memphis, Tennessee

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

EDWARD CLAY MITCHELL—QUINN CLINIC
1073 Madison Avenue
Memphis, Tennessee
Practice Limited to
Infant Feeding and Diseases of Children
Hours: 10:00 A. M. to 12:00 M.
2:00 to 5:00 P. M.
By Appointment Phone 7-1307

DUANE CARR, M.D.
Diseases of the Chest
Endoscopy — Thoracic Surgery
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee
Telephones: 8-3662; 2-3226; 2-2138

THE MEDICAL CLINIC
910 North State
Jackson, Mississippi
George W. Owen, M.D., Allergy
T. E. Wilson, M.D., Cardiology & Internal Medicine
John Bullock, M.D., Pediatrics: Allergic Diseases of Children
Gayden Ward, M.D., Internal Medicine, Gastroenterology
Robin Harris, M.D., Eye, Ear, Nose & Throat: Diagnosis.
Diagnostic Facilities: X-ray, Electrocardiogram, Basal Metabolism Complete Clinical Laboratory, Allergy Laboratory.

TOXOID

for Diphtheria Immunization

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

U. S. S. P. Co. Laboratories

Diphtheria Toxoid U. S. S. P. Co. Ramon is indicated to be used in all age groups. Immunity is usually established after two injections as evidenced by a negative Schick reaction.

Diphtheria Toxoid U. S. S. P. Co. Alum Precipitated is indicated for use especially in children up to 10 years of age. Immunity is usually established after one injection as evidenced by a negative Schick reaction.

Write for Information and Catalog

SMALLPOX VACCINE
(green) Vaccine Virus

A potent virus for the production of an active immunity effective against Smallpox.

Green Virus assures you of the greatest degree of sterility.

UNITED STATES USSP STANDARD PRODUCTS

U.S. STANDARD PRODUCTS CO.
WOODWORTH, WISCONSIN.

"CAVALITE"

a new light-weight,
more durable sheeting

"Cavalite" is a pure gum-coated silk sheeting. It's tough, durable and waterproof. It folds compactly, fits snugly to the mattress. It gives patient-comfort impossible with the old type of rubber sheeting. Here's how "Cavalite" stood up in laboratory tests:

"CAVALITE" withstood 24 hours of alcohol immersion.

"CAVALITE" registered no change after 24 hours in five sterilization preparations.

"CAVALITE" came unharmed through 24 hours of ether, perspiration and urine testing.

"CAVALITE" baked in a Geer Oven, showed no change at the end of 35 days.

Write for illustrated pamphlet.

McKesson & Robbins, Incorporated

Doster-Northington Division

Surgical Instrument and Hospital Supplies

1706-12 First Avenue Birmingham, Ala.

Founded in 1879

Allison's Wells

HOTEL - SANATORIUM

Famous through the years for the wonderful properties of its mineral water and as a health resort, Allison's Wells, under the direction of Dr. A. J. Brown this year has become the only sanatorium of its kind in Mississippi.

In addition to maintaining its full popularity as a resort-hotel, Allison's Wells has added a sanatorium department for the treatment of malaria, mild mental diseases, gastro-intestinal trouble, gall bladder trouble, arthritis and other troubles.

The sanatorium, which is guided by a board of governors composed of ethical physicians, is equipped with modern facilities.

For full information and rates, address

ALLISON'S WELLS,
HOTEL - SANATORIUM
On I. C. Main Line between Canton and Durant, on Jefferson Davis Highway
WAY, MISS.
A. J. Brown, M.D.
"A Source of Health In The Garden Spot of Central Mississippi"

THE SOUL OF THE SURGEON

By DR. RUDOLPH MATAS

Composition cover sixty cents, leather eighty-five.

Send your order to

THE MISSISSIPPI DOCTOR

Booneville, Miss.

SOUTHERN MEDICAL ASSOCIATION

31ST. ANNUAL MEETING

at

NEW ORLEANS

the

CRESCENT CITY

NOV. 30 - DEC. 1-2-3

THE WORTH OF MEDICAL MEETINGS to the physician is not the purpose of this announcement since the alert profession has come to recognize the value of keeping abreast through this channel. Rather, the purpose is to urge physicians to attend more medical meetings regularly.

Of particular interest to the profession in the South are the annual meetings of the Southern Medical Association where clinical sessions, eighteen sections and an expanse of scientific and technical exhibits constitute a four day education in the later developments of scientific medicine.

Surely, the meeting this year in New Orleans will be one well chosen for the specialist or general practitioner alike; the program will afford keen interest to both in the wide variety of meetings and exhibits, all being housed under one roof, the Municipal Auditorium.

New Orleans, often called "America's Most Interesting City," is indeed a delightful setting for pleasure and relaxation when the program of the day is over.

ALL MEMBERS OF STATE AND COUNTY medical societies in the South are cordially invited to attend. And all members of state and county medical societies in the South should be and can be members of the Southern Medical Association. The annual dues of $4.00 include the Southern Medical Journal—the equal of any, better than many.

SOUTHERN MEDICAL ASSOCIATION
Empire Building
BIRMINGHAM, ALABAMA

TULANE UNIVERSITY
OF LOUISIANA
SCHOOL OF MEDICINE

●

CLINICS:

During the week of November 22-27, 1937, a full schedule of general clinics will be given daily and evengs. Guest and local speakers. Registration fee $5.00.

For program and further information write Director of Graduate Studies, 1430 Tulane Avenue, New Orleans, La.

Physicians attending the

Southern Medical Ass'n.

Meeting

New Orleans Nov. 30 to Dec 3

are invited to visit our store where they will find the latest medical textbooks and monographs of all publishers on display.

●

J. A. MAJORS COMPANY
1301 Tulane Avenue

THE WALLACE SANITARIUM
MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

The Modern

“Mississippi Mrs.”

Untroubled by the toil and drudgery of old-fashioned household tasks, the modern “Mississippi Mrs.” rightfully wears her smile of triumph. Electric servants now bring a new measure of home happiness undreamed of before this company began its pioneering fourteen years ago. As a basic Mississippi Industry, employing over a thousand Mississippians, this company takes pride in providing modern comforts of better living to over 305 Mississippi cities, towns, communities and adjacent rural areas.

MISSISSIPPI POWER & LIGHT CO.

MEMPHIS' *newest and most conveniently located hotel . . . .*

the Wm. Len

In addition to its famous southern cuisine and luxurious accommodations, the Wm. Len serves its guests an extra measure of genuine southern hospitality.

right down town in Memphis
ON MAIN AT MONROE

Hotel Wm. LEN
MEMPHIS, TENN.
R. E. McEachin, manager

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 221 North Parrish St.
Jackson, Mississippi

DUCKWORTH DRUG COMPANY
Booneville, Mississippi

Distributors of:

Luminal of Sodium

Tablets and Powder

Novocaine Ampoules

Atabrine

Elixir of Pryamidon

Theominal Tablets

WINTHROP CHEMCAL
COMPANY
New York City

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most
Modern Business School

A. S. McCLENDON, President

JEFFERSON STANDARD LIFE INSURANCE CO.

The largest regular ordinary Life Insurance Company South of the Mason-Dixon Line.

Policy contracts especially adapted to members of the medical profession.

Trained life underwriters to advise and assist in securing your needs.

J. L. DENSON, District Manager
523-25 Lampton Building
Jackson, Miss.

JEFFERSON STANDARD LIFE INSURANCE CO.
JULIAN PRICE, President
Greensboro, N. C.

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate

HOUSTON HOSPITAL, Inc., HOUSTON, MISSISSIPPI
Approved: American College of Surgeons and American Hospital Ass'n.

—FULL TIME STAFF—

V. B. PHILPOT, M.D., F.A.C.S. Surgery and Gynecology	G. G. ARMSTRONG, M.D., F.A. C.S. Eye, Ear, Nose and Throat
J. R. WILLIAMS, M.D. X-ray, Superficial and Deep Therapy	O. B. CROCKER, B.A., B.S., M.D. Diagnosis, Internal Medicine

PRINTING PLATE SPECIALISTS
MISSISSIPPI ENGRAVING CO.
Jackson Miss.

WELCH'S SANITARIUM, Inc. --- Jackson, Miss.

ALCOHOLISM, DRUG HABITS, MILD NERVOUS DISORDERS treated. Special attention to limited number of problem children. Answering a keenly felt need in Mississippi, this modern sanitarium is under personal direction of Dr. R. R. Welch, former Supt., East Mississippi State Hospital and prior to that, Ass't. Supt., Miss. State Hospital, assisted by complete, highly trained staff. Excellent meals. Quiet, restful; beautiful surroundings; all outside rooms, private baths. Inspection by the medical profession invited. Reasonable rates; write or telephone.

WELCH'S SANITARIUM, Inc., JACKSON, MISSISSIPPI

THEOCALCIN

BILHUBER-KNOLL CORP.

FOR the failing heart of middle life give Theocalcin beginning with 2 or 3 tablets t. i. d., with meals. After relief is obtained, the comfort of the patient may be continued with smaller doses. Strengthens heart action, diminishes congestion and dyspnoea ...

THEOCALCIN (theobromine-calcium salicylate) *Council Accepted*

A Well Tolerated Myocardial Stimulant and Diuretic
Available in 7½ grain tablets and as a Powder ...

KNOLL BILHUBER

BILHUBER-KNOLL CORP. 154 OGDEN AVE., JERSEY CITY, N.J.

THE DAY YOU FIRST INSPECT IT...

or after you've used it a year

The Pandex will impress you by its extraordinary flexibility, its many novel and eminently practical features, its utter dependability. Like the famed two-tube two hundred milliampere Fluoradex, the new single-tube sixty milli Pandex meets a definite demand. In the small hospital, where the scope of diagnostic x-ray work is limited, it serves adequately for every purpose. It is an excellent auxiliary unit to relieve major equipment for its specialized functions in the large institution.

The brilliant new Westinghouse Pandex is fully described in Bulletin No. 371. Your copy is waiting for you.

**WESTINGHOUSE
X·RAY CO·INC·
LONG ISLAND CITY·N·Y·**

THE DICK X-RAY COMPANY
MEDICAL ARTS BUILDING MEMPHIS, TENN.

BLUE MOUNTAIN COLLEGE

BLUE MOUNTAIN,
MISSISSIPPI

Healthful
High Altitude
Mountain Springs
Outdoor Exercise
Golf
Tennis
Aquatics
Archery
Softball
Basketball
Volleyball

Lawrence T. Lowrey,
President

Beautiful youth and beautiful age acquired in the ways of health and righteousness. "Mother" Berry and students of the college.

FULL MEMBERSHIP IN SOUTHERN ASSOCIATION OF COLLEGES
FULL MEMBERSHIP IN ASSOCIATION OF AMERICAN COLLEGES

Located 25 miles south of the Tennessee line in a high and healthful setting among the "Berkshire Hills of North Mississippi," on the slope of beautiful "Blue Mountain," the college in its sixty-fifth year continues to train a superior type of young woman in the arts, letters, and professions, preparing her for life as a woman will live it.

No cigarettes, no alcoholic beverages, regular hours, sufficient rest, scientifically planned diet, properly exercised bodies, adequate relaxation, wholesome recreation, and trained minds, bring girls through the four most delicate years of their lives at Blue Mountain, the years in which they are emerging from girlhood into womanhood, healthy in body, cultured in mind, refreshed in spirit.

Dr. Lawrence T. Lowrey

At the right is shown a group of typical Blue Mountain girls with Dr. John L. Hill, Nashville, Tenn., who gave the baccalaureate address on May 24, 1937.

Main Building

New Fenwick Sanitarium

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES
DRUG AND LIQUOR ADDICTIONS

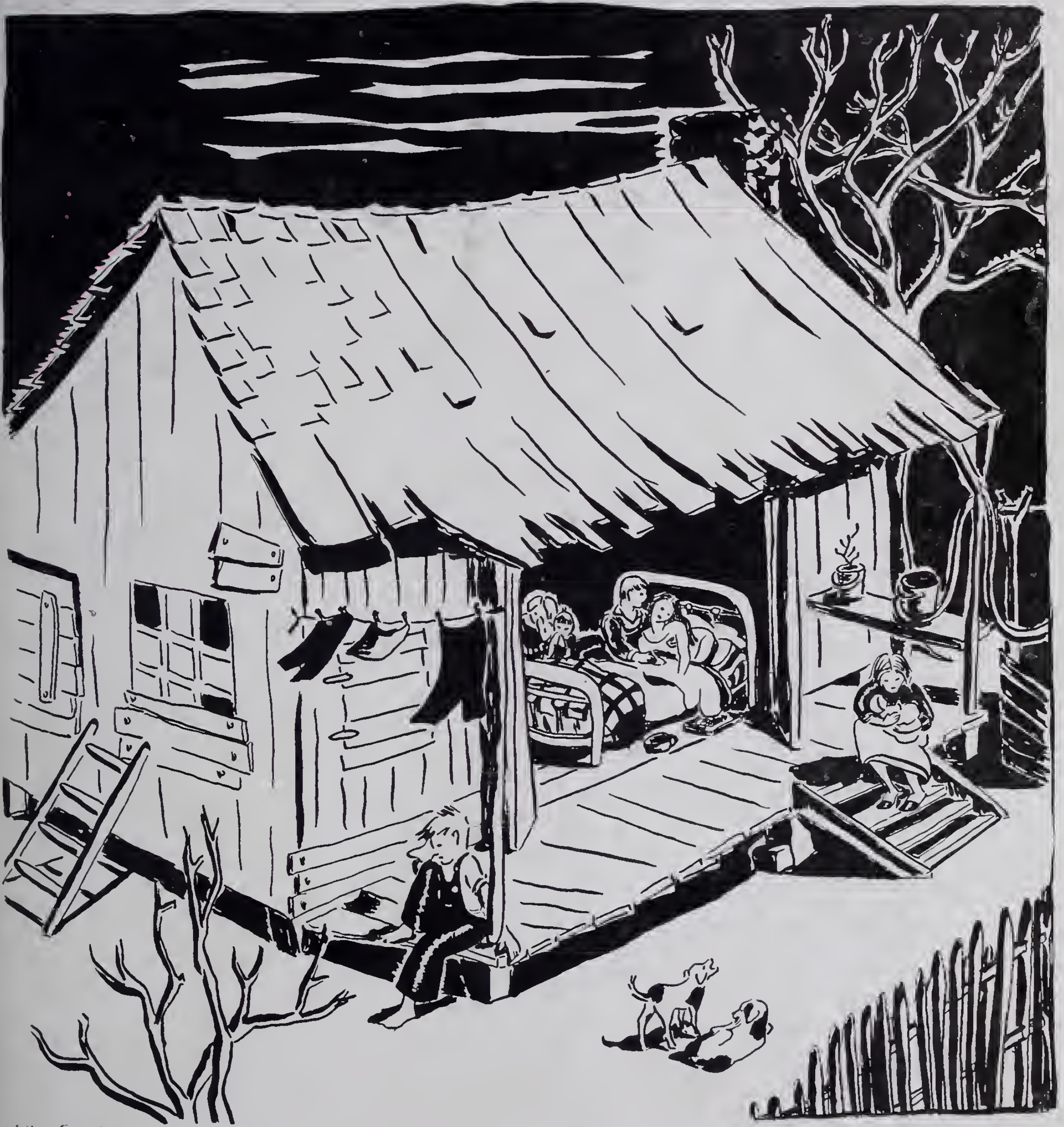
An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association — medical staff specially trained — clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds — homelike environments — located in the healthy and beautiful town of Covington, Louisiana — a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

Geo. E. Riley

58
DUPLICATE
THE N Y ACADEMY OF MEDICINE
NOV 25 1938
LIBRARY

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, DECEMBER, 1937 NO. 7.



Yes, Mother is gone.
She was so anxious to have you children examined before it was TOO LATE.
Let us hope that the people who can will buy Christmas Seals so that the Diagnostic Clinic from the Sanatorium may come to our county and help us out.

ACCEPTED
AMERICAN MEDICAL ASSN.
Council on Pharmacy and Chemistry

OLEUM PERCOMORPHUM

Economical source of vitamins A and D. 100 times as potent as cod liver oil.* For the prevention and treatment of rickets and tetany; to prevent poor dentition due to vitamin D deficiency; for pregnant and lactating women; for persons on restricted diets; to aid in building general resistance; and wherever cod liver oil is indicated.

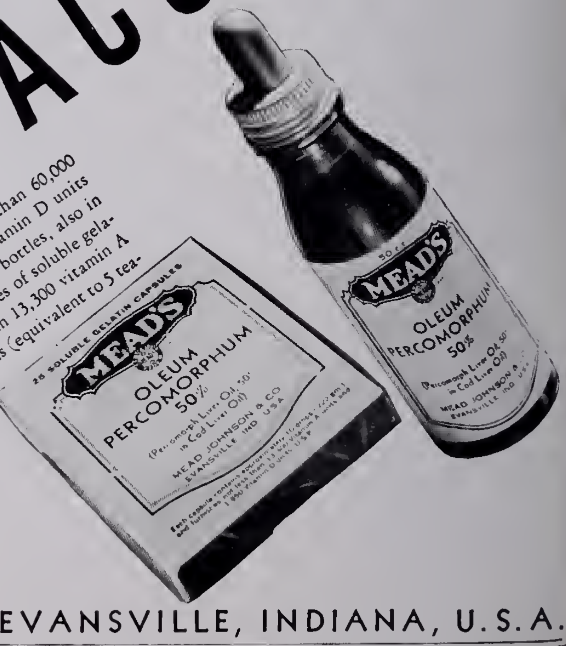
NO LAITY ADVERTISING

We purposefully selected a classic name which is unfamiliar to the laity, or at least not easy to popularize. Oleum Percomorphum is supplied without dosage directions. Samples are furnished only to physicians.

COUNCIL ACCEPTED

Oleum Percomorphum offers not less than 60,000 U.S.P. vitamin A units and 8,500 vitamin D units per gram. Supplied in 10 and 50 cc. bottles, also in boxes of 25 and 100 10-drop capsules of soluble gelatin, each containing not less than 13,300 vitamin A units and 1,850 vitamin D units (equivalent to 5 teaspoonfuls cod liver oil*).

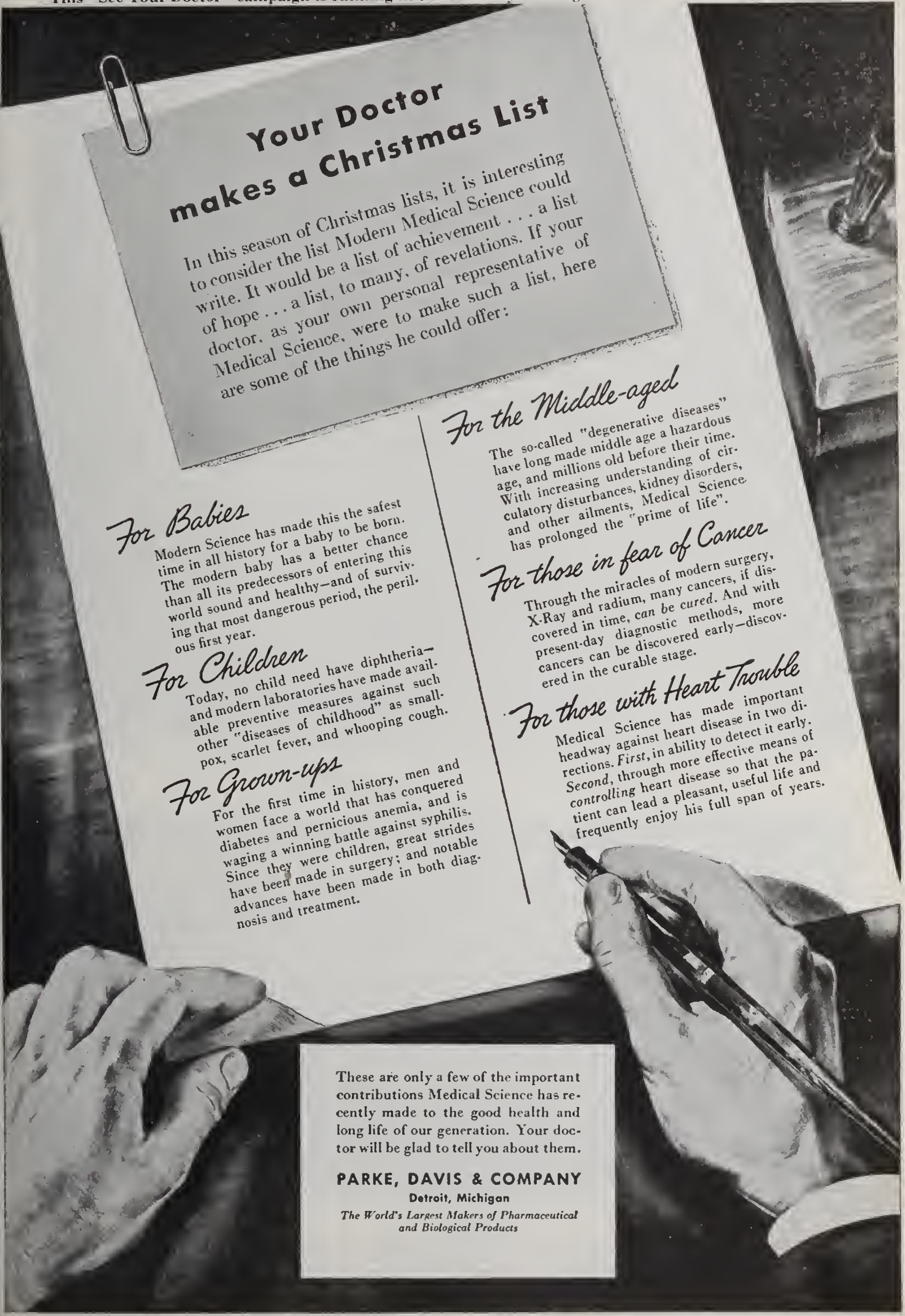
*U.S.P. Minimum Standard



MEAD JOHNSON & COMPANY, EVANSVILLE, INDIANA, U.S.A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons

One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in the *Saturday Evening Post* and other leading magazines.



Your Doctor makes a Christmas List

In this season of Christmas lists, it is interesting to consider the list Modern Medical Science could write. It would be a list of achievement . . . a list of hope . . . a list, to many, of revelations. If your doctor, as your own personal representative of Medical Science, were to make such a list, here are some of the things he could offer:

For Babies

Modern Science has made this the safest time in all history for a baby to be born. The modern baby has a better chance than all its predecessors of entering this world sound and healthy—and of surviving that most dangerous period, the perilous first year.

For Children

Today, no child need have diphtheria—and modern laboratories have made available preventive measures against such other "diseases of childhood" as smallpox, scarlet fever, and whooping cough.

For Grown-ups

For the first time in history, men and women face a world that has conquered diabetes and pernicious anemia, and is waging a winning battle against syphilis. Since they were children, great strides have been made in surgery; and notable advances have been made in both diagnosis and treatment.

For the Middle-aged

The so-called "degenerative diseases" have long made middle age a hazardous age, and millions old before their time. With increasing understanding of circulatory disturbances, kidney disorders, and other ailments, Medical Science has prolonged the "prime of life".

For those in fear of Cancer

Through the miracles of modern surgery, X-Ray and radium, many cancers, if discovered in time, *can be cured*. And with present-day diagnostic methods, more cancers can be discovered early—discovered in the curable stage.

For those with Heart Trouble

Medical Science has made important headway against heart disease in two directions. *First*, in ability to detect it early. *Second*, through more effective means of *controlling* heart disease so that the patient can lead a pleasant, useful life and frequently enjoy his full span of years.

These are only a few of the important contributions Medical Science has recently made to the good health and long life of our generation. Your doctor will be glad to tell you about them.

PARKE, DAVIS & COMPANY
Detroit, Michigan
The World's Largest Makers of Pharmaceutical and Biological Products

THE DAY YOU FIRST INSPECT IT...

or after you've used it a year

The Pandex will impress you by its extraordinary flexibility, its many novel and eminently practical features, its utter dependability. Like the famed two-tube two hundred milliampere Fluoradex, the new single-tube sixty milli Pandex meets a definite demand. In the small hospital, where the scope of diagnostic x-ray work is limited, it serves adequately for every purpose. It is an excellent auxiliary unit to relieve major equipment for its specialized functions in the large institution.

The brilliant new Westinghouse Pandex is fully described in Bulletin No. 371. Your copy is waiting for you.

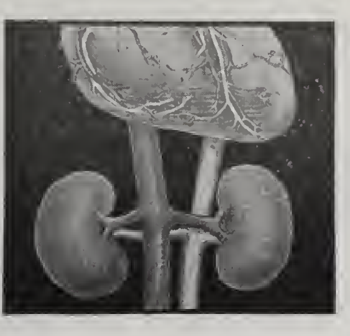
**WESTINGHOUSE
X·RAY CO·INC·
LONG ISLAND CITY·N·Y·**

THE DICK X-RAY COMPANY
MEDICAL ARTS BUILDING MEMPHIS, TENN.

TCS

Theobromine, gr. 3.40 Calcium, gr. 0.12 Salicylates, gr. 3.48
Phenobarbital, gr. 0.25

Diuretic, coronary vasodilator, myocardial and renal stimulant and neuro-circulatory sedative.



Indications: Hypertension, angina pectoris, coronary thrombosis, myocardial insufficiency, and edema.

* * *

Directions
One to three tablets three or four times daily.

* * *

Dispensed in bottles of 50 and 250 tablets

* * *

WM. P. POYTHRESS & COMPANY, *Inc.*
MANUFACTURING CHEMISTS
RICHMOND VIRGINIA

You'll Want to Know All ABOUT THIS G-E DIAGNOSTIC X-RAY UNIT

If you have put off buying diagnostic x-ray apparatus until you could satisfy yourself that, for what you can afford to pay, you will get what you'd really like to have—then it's time to size up the G-E Model R-36.

You want high quality, of course—reliable equipment to produce results that will reflect credit to your professional service. The R-36, designed for a much wider diagnostic range than the usual office x-ray unit, equips you ideally for radiographic and fluoroscopic examinations — including fractional-second films of the chest at six feet.

Self-contained and extremely compact, the R-36 is readily accommodated in a small floor space. Completely oil-immersed, it is shockproof, dustproof, and moisture-proof—free from the effects of atmospheric variations. These outstanding features, combined with an ingenious control system which simplifies operation and gives you accurate and refined control of the x-ray energy, are reasons why you can rely on the R-36 for a uniformly high quality of results.

You'll have an entirely new conception of office x-ray equipment when you get all the facts on the R-36, and learn, too, that the moderate price and easy terms of payment bring it conveniently within your means.

A512

GENERAL ELECTRIC X-RAY CORPORATION

2012 Jackson Blvd. Chicago, Illinois

Please send, without obligation, your catalog on the Model R-36 Diagnostic X-Ray Unit.

Name ....

Address ....

....

HOYE'S SANITARIUM

"IN THE MOUNTAINS OF MERIDIAN"
Meridian, Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital.

Robert E. Lee Hotel

"The High Spot of Southern Hospitality"

Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager STEWART GAMMILL, Jr., Asst. Mgr.

Short-Wave Diathermy Unit

STANDARD MODEL
500 WATTS OUTPUT
18 METERS

Standard accessory equipment furnished with the Hogan Brevatherm "Standard Model" includes:

1 pair 5" x 7" conderser plate electrodes
1 pair 7" x 9" condenser plate electrodes
2 pair cuff electrodes (medium and small)
1 felt "build-up" pad for each electrode above
1 pair rubber electrode bandages with fasteners
1 line cord and plug

Treatment cords with jack plugs are attached to each electrode.

THE GWINNER-MERCERE CO.
191 MADISON AVE.
MEMPHIS, TENN.

BAPTIST HOSPITAL
Jackson, Miss.

"CAVALITE"

a new light-weight,
more durable sheeting

"Cavalite" is a pure gum-coated silk sheeting. It's tough, durable and waterproof. It folds compactly, fits snugly to the mattress. It gives patient-comfort impossible with the old type of rubber sheeting. Here's how "Cavalite" stood up in laboratory tests:

"CAVALITE" withstood 24 hours of alcohol immersion.

"CAVALITE" registered no change after 24 hours in five sterilization preparations.

"CAVALITE" came unharmed through 24 hours of ether, perspiration and urine testing.

"CAVALITE" baked in a Geer Oven, showed no change at the end of 35 days.

Write for illustrated pamphlet.

McKesson & Robbins, Incorporated
Doster-Northington Division
Surgical Instrument and Hospital Supplies
1706-12 First Avenue Birmingham, Ala.

WELCH'S SANITARIUM, Inc. --- Jackson, Miss.

ALCOHOLISM, DRUG HABITS, MILD NERVOUS DISORDERS treated. Special attention to limited number of problem children. Answering a keenly felt need in Mississippi, this modern sanitarium is under personal direction of Dr. R. R. Welch, former Supt., East Mississippi State Hospital and prior to that, Ass't. Supt., Miss. State Hospital, assisted by complete, highly trained staff. Excellent meals. Quiet, restful; beautiful surroundings; all outside rooms, private baths. Inspection by the medical profession invited. Reasonable rates; write or telephone.

WELCH'S SANITARIUM, Inc., JACKSON, MISSISSIPPI

MISSISSIPPI'S . . . only and most conveniently located Physician's and Surgeon's Supply House

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St. Phone 1444
JACKSON, MISS.

Let's Grow With Mississippi

Your Every Need Quickly Answered

- Surgical Instruments
- Physio-Therapy
- Belts and Trusses
- Rubber Goods
- Wheel Chair Rentals
- Hospital Furniture

Etc.

The Friendly Store of Dependable Service

As Close As Your Telephone

IN THIS ISSUE

ACUTE ANTERIOR POLIOMYELITIS
Gilbert J. Levy, M.D. 1
THE DIAGNOSIS AND TREATMENT OF CANCER OF THE BREAST
H. A. Gamble, M.D. 12
THE TREATMENT OF VARICOSE VEINS
F. W. Sandifer, Jr., M.D. 16
EXTRA-CEREBRAL CAUSES OF EPILEPSY
H. Randolph Unsworth, M.D. 20
ANGINA PECTORIS
F. L. Husbands, M.D. 22
EDITORIALS 25
PROGRAM SPEAKER 29
UNDERWOOD RECEIVES APPOINTMENT 29
LETTERS TO THE EDITOR 29
MID-SOUTH PROGRAM 30
DR. SAMUEL R. DEANES 31
HOSPITAL INSURANCE 31
DR. W. N. NANNEY 33
PROGRAM FOR THIRTEEN-COUNTY MEDICAL SOCIETY 33
NEW ORLEANS GRADUATE MEDICAL ASSOCIATION 33
MID-SOUTH EXHIBITORS 34
AMERICAN PUBLIC HEALTH ASS'N. 34
LOCATES IN JACKSON 35
MEDICAL GROUP MEETS 35
DR. AUGUSTUS M. HARRELSON 35
LEAKE COUNTY NEWS 35
BOOK REVIEWS 36
TUBERCULOSIS ABSTRACTS 37
THE TULANE UNIVERSITY SCHOOL OF LOUISIANA SCHOOL OF MEDICINE 38
FRACTURES OF AND ABOUT THE NECK OF THE FEMUR
Willis C. Campbell, M.D. 39
THE PRIVATE PHYSICIAN'S PART IN THE CONTROL OF SYPHILIS
R. A. Vonderlehr, M.D. 45
SYPHILITIC MENINGITIS WITH OCULAR MANIFESTATIONS
Van Dyke Hagaman, M.D. 52
MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS 57
WOMAN'S AUXILIARY 76

WITH OUR ADVERTISERS

Allison's Wells xiv
American Surgical Supply Company viii
Baptist Hospital, Jackson, Miss. vi
Blue Mountain College ....Inside back cover
Courtesy Cards ....xi, xii, xiii xiv
Duckworth Drug Company xviii
Eli Lilly Company x
General Electric X-Ray Corporation iv
H. A. Phillips Artificial Limb Company xviii
Houston Hospital, Inc., Houston, Miss. xvi
Hotel Wm. Len xix
Hoye's Sanitarium v
Jefferson Standard Life Insurance Company xvii
Lynhurst Sanitarium xvii
Mead-Johnson Company ....Inside front cover
McKesson & Robbins, Inc. vii
Mississippi Engraving Company xvi
Mississippi Power and Light Company xv
Fenwick Sanitarium ....back cover
Parke, Davis & Company i
Robert E. Lee Hotel v
The Dick X-Ray Company ii
The Draughon School of Commerce xviii
The Gwinner-Mercere Company vi
The Wallace Sanitarium xv
U. S. Standard Products Co. xx
Welch's Sanitarium, Jackson, Miss. vii
Wm. Poythress & Company iii

On the night before Operation

. . . worry and sleeplessness can be prevented. One pulvule of 'Sodium Amytal' (Sodium Iso-amyl Ethyl Barbiturate, Lilly), 3 grains, usually insures a good night's rest. On the following morning, if the dose is repeated an hour or more before transference to the operating room, there is assurance of basal hypnosis, and induction of anesthesia will be easier for both patient and anesthetist. The total quantity of anesthetic required will be reduced—an important factor in smooth postoperative convalescence.

'Sodium Amytal' is also suggested for general medical use.

Supplied in 1-grain and 3-grain pulvules (filled capsules) in bottles of 40 and 500.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Acute Anterior Poliomyelitis

WITH SPECIAL REFERENCE TO IT'S EARLY DIAGNOSIS AND PREVENTION

GILBERT J. LEVY, M.D.
MEMPHIS, TENN.

Poliomyelitis, a disease which occurs sporadically and epidemically, is peculiarly puzzling to one attempting to find its etiologic agent and its control. Let us explore a bit of its historical background. The earliest clinical reference came from the pen of Michael Underwood[1] in 1784. The title of his work was "Treatise on the Diseases of Children." An often repeated first description of poliomyelitis is from the chapter of "Debility of the Lower Extremities."

"The disorder intended here is not noticed by any medical writer within the compass of my reading or is not so described as to ascertain the disease. It is a common disorder I believe, and seems to occur seldomer in London than in some other parts. Nor am I enough acquainted with it to be fully satisfied, either in regard to the true cause or seat of the disease, either from my own observation, or that of others, and I have myself never had opportunity of examining the body of any child who has died of this complaint. I shall therefore only describe its symptoms." He states, "It usually attacks children previously reduced by fever, rarely attacking those under one or more than four or five years old. It is then a chronic complaint, nor with pain or fever so the first thing observed is a debility of the lower extremities, which gradually become infirm, and after a few weeks unable to support the body." For treatment he suggested "irons to the legs for support of the limbs and enabling the patient to walk." In a later edition, the fourth English of 1799, Underwood seemed to have a clearer understanding picture of poliomyelitis and under "Paralysis or Poliomyelitis," he writes:

"The palsy is a more common disorder in infants and young children than writers seem to have imagined, being confined to no age and attacking children in very different degrees, in the manner it does adult persons. It accordingly sometimes seizes the upper and sometimes the lower extremities, in some instances, it takes away the entire use of the limbs it has attacked, and in others, only weakens them. Sometimes the speech is very much affected and at others not at all; the intellect is also greatly impaired in some instances, and in others is only torpid, for though children may be dull and heavy, yet when roused their imagination is found to be fully awake to the common objects around them." Again, late, he mentions the possible association of teething or of foul bowels.

Badham's[2] article entitled "Paralysis in Childhood," "Four Remarkable Cases of Suddenly Induced Paralysis in Extremities Occurring in Children, With Any Apparent Cerebral or Cerebrospinal Lesion," appeared in November, 1835. This formed the earliest group of cases known to occur within a small area and brief time. These reports furnished Jacob Heine an incentive to study in detail this strange paralysis in children. A splendid description of various types of weakness and paralysis of extremities is noted. Badham said, "I shall be thankful for any suggestion for it is lamentable indeed to witness one of the most humiliating infirmities of age inflicted on infancy."

Jacob Von Heine,[3] an orthopedic surgeon of Cannstatt in 1840, published a seventy-eight page monograph which was the first systematic study of poliomyelitis. Heine was especially interested in the mechanical problem of devising exercising machines for development of weakened muscles, improving the forms of braces and supports. Heine concluded that the symptoms pointed toward an irritative and congestive affection of the cord. The paralysis was thought to be due to an exudate of the meninges and the discrepancy between lower and upper extremity was explained on the basis of a more solid exudate settling by gravity and failing to be resorbed.

Similarly he further assumed that the anterior columns are affected by a more solid exudate, while the posterior was relieved by resorption of the more fluid exudate.

Kennedy[4] later observed that in certain instances the paralysis disappeared promptly and the cure was complete, such cases he classified as "the temporary paralysis of early life."

Strumpell,[5] in 1884, pointed out the resemblance between certain cases of acute encephalitis with spastic paralysis in children and cases of poliomyelitis. He also suggested the possibility of an infectious agent as being responsible for the disease.

Medin,[6] in 1887, observed in Stockholm an outbreak of 44 cases of infantile paralysis. Four of these cases ended fatally. Twenty-seven of these cases were of Heine's spinal type but the other 17 cases presented universal symptoms as to localization. Medin drew his conclusion that infantile paralysis is an acute infectious disease an entity "that it may appear epidemically, that not only are the gray anterior horns of the cord affected but that in the acute stage the whole organism is involved; that the onset may be interrupted by a period of fever free remission, and that the symptom complex changes according to the portion of the central nervous system most affected. Medin distinguished in addition to the spinal type, the bulbar, ataxic, encephalitis, and polyneuritic types but whether the disease shows itself as poliomyelitis, polyneuritis, as monoplegia or as polioencephalitis acuta these differently localized forms belong geneticaly to one and the same disease."

These important contributions to the knowledge of poliomyelitis entitled Medin to share with Heine the credit for the development of the clinical picture of the disease and led Wickman to prepare the name, "Heine-Medin disease."

Wickman[7] extended and later classified Medin's concept of poliomyelitis. He recognized the abortive type (including the non-paralytic) and added the meningitic and the type resembling Landry's paralysis. In 1907 Wickman published his investigation of 1025 cases which occurred in the great Swedish epidemic of 1905. He added a theory as how the infection was spread, and that person to person contact was the mode of transmission. In many instances he proved direct contact between cases of the disease occurred and in others indirect contact through healthy intermediaries had taken place. He likewise was convinced that mild unrecognized cases played an important role in the spread of disease. This concept of transmission of poliomyelitis holds good today and is freely accepted by epidemiologists.

ETIOLOGY

The following year after the appearance of Wickman's monograph Landsteiner and Popper[8] discovered that poliomyelitis could be communicated to monkeys using as inoculum the cord and brain of a child who died of poliomyelitis. During the following year the transmission from one monkey to another, essential to show the multiplication of the human organism was achieved by three independent groups of investigators. Flexner[1] and Lewis[9] showed the disease could be transmitted indefinitely from animal to animal. Even with this evidence of communicability visible micro-organisms could not be found either beyond microscopical range or of such a character not to take a stain. It soon became known that this virus would pass through Birkfield filters.

Flexner and Noguchi[10] succeeded in growing anerobic globoid bodies from poliomyelitic tissue. Later they claimed success in recovering these bodies after passage through monkeys. Amoss failed to discover any immuniologic response between the globoid bodies and the filterable virus.

A number of investigators advocated an etiological relationship between streptococci and epidemic poliomyelitis. Rosenow[11] was a zealous advocate of a pleomorphic green producing streptococcus as the cause of poliomyelitis. Most of Rosenow's experimental work was with rabbits. Rosenow developed a serum from those immunized with aerobic cultures by the pleomorphic streptococcus. Other investigators, Bull, Smillie, Amoss and Eberson[12] later found that the strain of streptococcus developed by Rosenow had no neutralizing powers, either in vitro or in vivo nor any therapeutic properties in monkeys. There is now almost universal acceptance that poliomyelitis is caused by a neurotropic filterable virus. Most authorities are of the opinion that the virus enters the body by way of the nasopharyngeal mucus membranes and the olfactory nerve. The disease is communicated to others by the secretions of the mucus membranes of the respiratory tract, the virus possibly being able to escape back from the infected central nervous system into the nasal mucosa. Following recovery, immunization is achieved, and the convalescent blood serum both in human beings and monkeys contain neutralizing substances or properties which are effective in vivo and in vitro.

The virus of poliomyelitis resists light, freezing, heat, and weak chemicals such as those used in the nose and throat. It may persist in water and milk for more than one month. It is killed by exposure to 50 degrees C. for thirty minutes, by exposure to sunlight, by bichloride of mercury, formaldehyde, and certain oxidizing agents. The virus has been demonstrated in washing of the nasopharynx of patients and well carriers, in tonsils and lymph nodes, brain substance of monkeys, in the brain, cord, medulla, basal ganglia and sympathetic ganglia of monkeys and mankind dying of the disease. The virus has not been demonstrated in the blood, body viscera, or spinal fluid of experimental monkeys, or of man in any stage of the disease. It is believed that in man the virus is most infective during the first ten days of the disease and during the incubation period.

The manner of transmission of poliomyelitis is still a very debatable point. The majority favor transmission by means of secretion of the mucus membrane. Infection may be conveyed by acute cases of the disease by healthy carriers subclinical, or abortive cases, undiagnosed atypical cases or by convalescent patients. Toomey strongly favors the gastrointestinal route as the portal of entry. It has been definitely proven that contaminated milk may be a factor in the spread of the disease. Toomey states that the gastro-intestinal tract is often involved before the somatic paralysis appears. Reflex changes similar to those which appear in persons with typhoid fever occur. The disease can spread along the sympathetic fibers from the intestine. The virus acts differently when injected by way of the gastro-intestinal tract than it does injected by any other route. Toomey is of the opinion that the clinical symptoms are best understood if a spread is presupposed along the sympathetic, parasympathetic, and chorda tympani fibers to the lumbar cervical and bulbar areas of the cord from a portal of entry in the gastro-intestinal tract.

Kramer in discussing Tomey's paper on "Active and Passive Immunity and Portal of Entry in Poliomyelitis" emphasized the fact that the epidermiology of poliomyelitis is that of a contact disease, like measles and diphtheria and that the etiologic agents enter the body through the upper respiratory tract. In reply Toomey said, "Why then don't monkeys exposed to other monkeys with the disease contract this infection?"

SYMPTOMATOLOGY AND DIAGNOSIS

The predominating symptoms of poliomyelitis vary in different epidemics and at different stages of the same epidemic. One must remember that the symptoms are determined by the systemic response to the infecting virus and by the degree of invasion of the central nervous system. Even though the virus more frequently invades the motor cells of the anterior horns of the cord, it may occasionally attack other parts of the central nervous system and give rise to a varied clinical picture.

The average incubation period of poliomyelitis lies between seven and ten days. There are variations from four to twenty days but from clinical observation and experimental data the majority of cases usually fall in the seven to ten day period.

ONSET

In the majority of cases the onset is very abrupt. An analysis of the 1931 New York outbreak showed 61 per cent of the cases started suddenly and the symptoms of the systemic stage continue more or less uninterruptedly for a variable period until the central nervous system is involved. Draper gave to these cases the term "straggling." In a smaller percentage of cases there is an initial period in which the patient is apparently well, only to suffer a recurrence of symptoms and subsequent evidence of central nervous system involvement. This is Draper's "dromedary" type. Stimson[13] claims this term is descriptively inaccurate as a dromedary has but one hump and it is the camel that has two humps. Lastly, in a few cases the first evidence of the disease may be the paralysis. Clinically these stages may occur simultaneously or overlap. Any one or two of these stages may be so slight and transient that they may be overlooked. If only the systemic stage occurs, the case may be designated as abortive or undeveloped poliomyelitis. Many physicians define all non paralytic cases as abortive. It must be remembered that symptom free periods may occur between the first and second period. This may last one to seven days. The paralytic stage from the first evidence of weakness to the height of the paralysis may require two to seven days.

The symptoms of the systemic phase include fever usually 101 to 104 F. This is the most constant feature of the early stage. Onset with chill occurs occasionally. Two cases in 1936 came under our observation which on account of chilliness at the onset had been diagnosed as malaria and had received liberal doses of quinine. Headache has been a constant and persistent symptom in the beginning of the disease in our small series of cases this year.

Gastro-intestinal symptoms include nausea, vomiting, constipation more than diarrhea.

Respiratory Disturbances: Coryza, sore throat and cough make up this picture. Congestion of the throat may be either mild or severe. Older patients may complain of generalized muscular pain so frequently found in grippal conditions.

Drowsiness may initiate the beginning of the disease suggesting encephalitis. Perhaps the high fever in the beginning of the disease may explain this symptom. General restlessness, irritability, and malaise in children have been noted in this initial phase during several outbreaks of the disease.

No characteristic diagnostic criterion can be reached during this first stage. Contacts during the first stage with fever and a negative fluid cannot justify a diagnosis of poliomyelitis. Sufficient serological evidence has accumulated to designate the spinal fluid is unchanged from normal during the first stage. It is well to remember that meningial irritation is necessary to produce spinal fluid changes. Even in the presence of an epidemic with symptoms of almost any generalized infection and with a known history of contact the most we can say is that poliomyelitis is suspected.

The second or meningitic period indicates the entrance of the virus into the central nervous system. The term preparalytic stage is synonymous ith meningeal invasion. In the beginning there is painful neck and stiffness and pain down the spine. A characteristic picture ensues when the child supports itself when sitting up in bed. The rigidity of the lower spine can always be emphasized by attempting flexion. This will produce pain. The arms of the patient will be held rigidly extended to support the spine. The head drop sign has also proven a most valuable aid in early diagnosis. This is elicited by raising the shoulders of the patient and immediately the head drops back. This sign has been present in over ninety-five per cent of our cases.

The general appearance of the patient at this stage is one not easily forgotten by those experienced in handling the disease. The face is flushed and sweating is present in most cases. Sweating is especially profuse about the head. Fear and apprehension are noticeable in the majority of small children affected. The patient looks sicker and acts sicker than the degree of fever indicates. Mottling of the skin frequently occurs. The tache cerebrale or reddish streak is easily obtained in these patients by stroking them with the finger tip. Drowsiness and stupor mentioned in the first stage should not be overlooked. Hyperesthesia is usually present. This tenderness may be superficial or deep or on motion of the joints. Ataxic tremors and twitchings are frequent, especially so if muscular effort is attempted. The Kernig, Brudzinski and Babinski signs are of no significant clinical value. Retention of urine is not an infrequent occurrence.

The patellar and other deep tendon reflexes are usually exaggerated in the preparalytic stage and may be unequal, an important diagnostic point. They disappear before or during the development of paralysis which in turn are not likely to develop in the absence of reflex changes. The abdominal and cremasteric reflexes are present during the first few days but quickly disappear in cases of paralysis of the lower extremities. From the evidence submitted, that is, the headache, tremor, stiff neck and spine, preparalytic paralysis should be suspected and a lumbar puncture done for final corroborative evidence.

The spinal fluid shows, as a rule, a marked increase of pressure. The color is usually clear in the majority of cases but a faint haziness may be present. The most constant and reliable findings is the increase of spinal fluid cells. The usual range is from 40 to 100. The lower limit of cells may be 12. The high limit of cell increase may number 1000 to 5000. A recent fatal bulbar case showed 900 cells in the initial lumbar puncture. Lymphocytes are the predominating cells. Occasionally, very early neutrophilic polymorphonuclear cells may be increased only to be succeeded by the lymphocytes. The maximum cell count is usually within the first three days with a tendency to fall after the fifty day and to approach normal by the tenth or twelfth day. The fluid is sterile and the presence of the virus in it cannot be demonstrated. Albumin and globulin are moderately increased in the beginning of this stage. The sugar and chloride content of the spinal fluid is of no practical significance in the diagnosis. Cell count should be done promptly on withdrawal of the spinal fluid. The spinal fluid findings bear no relation to the presence or absence of paralysis, not in the preparalytic stage are they of prognostic value as the occurrence of paralysis.

The above spinal fluid findings are of value in excluding other conditions. In encephalitis the cell count too may be high. The sugar content is frequently more elevated in encephalitis. One of the most valuable points in differentiating an encephalitis is the drowsy or stuporous condition of the patient. Post-infectious encephalitis following measles, mumps, and scarlet fever should be kept in mind. The patient with poliomyelitis is usually very alert and well oriented. Tuberculous meningitis may give a history of exposure and be of slow development. The spinal fluid sugar is decreased or absent. In Luetic meningitis the Kahn and Kline reaction or a family history of lues or other stigmata of congenital lues will rule out poliomyelitis. All forms of pyogenic meningitis may be excluded by smears, cultures, or quantitative sugar tests.

The third or paralysis stage has been divided by Neal[14] into three types:

"1. Ataxic type, instances of which are very rare. Ataxia, nystagmus and lack of coordination characterize the condition. Autopsy usually shows involvement of the cerebellum, Clarke's column and the intervertebral ganglia. The motor nerve cells are not involved in this ataxic type.

"2. The cerebral or encephalitic form (also called Strumpell type) is occasionally met with during epidemics. Delirium, stupor and coma, plus convulsions, increased reflexes and ankle clonus, characterize this type. The upper motor neurone may be involved and be productive of a spastic type of paralysis. A very high mortality occurs. Unless motor cells are involved even at autopsy a positive diagnosis is difficult. Neutralization tests or finding the virus in nasopharyngeal washings would assist in the diagnosis.

paralysis. This is usually described as the myelitic or spinal type. Neal found 296 out of 310 cases were of this type. Subdivisions of this type are, (a) spinal cases in which motor nerves are involved, (b) the bulbar cases in which one or more cranial nerves are involved and (c) combinations of spinal fluid and bulbar involvement."

The paralysis usually appears during the febrile stage or immediately subsequent to the subsidence of the fever. This is usually between the second and fifth day of the disease but may not appear until the tenth day. In most cases paralysis reaches its height within a few hours of its onset but we have seen in some instances the paralysis begin in the lower extremities and slowly but gradually spread up the body involving the muscles of respiration and result in death, this process taking six to seven days. In infants and very very young children who have not yet learned to walk, it is frequently difficult to determine accurately the paralysis, since no absolute reliance can be placed in the motor reflexes. The existence of paralysis may be demonstrated by lack of resistance to passive motion in a limb or limbs, by the hypotonic state of the muscles and by the occurrence of muscular atrophy. Lifting the limb and allowing it to drop will frequently reveal the flaccid state.

Following the wave of paralysis, recovery begins to set in. The edema of the brain and cord becomes absorbed, pressure in the motor cells is removed, and muscles depending on these cells for their innervation resume function, if injury to the neurone has not been too great to permit nerve recovery. Mild cases may clear up in less than a week, but evidence of improvement usually is found within two weeks. We are optimistic enough to expect some improvement in nearly every case, but when paralysis has existed over two months, complete recovery is rarely attained. At the end of six months a true estimate of residual paralysis can be ascertained.

Distribution of Paralysis: Almost every possible combination of paralysis may exist. In general it may be said according to many observers that the legs are most commonly affected. In order of frequency the quadriceps femoris, tibialis anticus and the peroneal group are the most frequently involved. The arms are also often the site of paralysis, especially the deltoid muscle. In the New York epidemic of 1931 the paralysis of one or both lower ex-

"3. The third type is one where the lower motor neurone is involved, resulting in flaccid tremities alone occurred nearly six times as frequently as paralysis of one or both upper extremities alone.

Respiratory paralysis may be due to several different types of nerve lesions:

"1. There may be thoracic cord involvement with paralysis of the costal muscles.

"2. Cervical cord lesions may affect the phrenic nerve centers with resulting diaphragmatic paralysis.

"3. Bulbar lesion involving the vagus nuclei. Bulbar paralysis of the pharynx, larynx and tongue are usually present.

"4. Acute ascending Landry's paralysis. A combination of the above three types.

"5. Indirectly accumulated secretions may cause mechanical difficulties as result of pharyngeal paralysis alone."

Individual cranial nerves may be involved such as the third, fourth or sixth cranial nerve affecting the eye muscles are occasionally met.

In the respiratory paralysis the mortality is very high.

Differential Diagnosis: We have already discussed the spinal fluid findings in the paralytic stage of poliomyelitis contrasted with acute infections of the central nervous system, namely tuberculous meningitis, epidemic meningitis, acute syphilitic meningitis, meningococcus meningitis and other forms of purulent meningitis.

After paralysis has developed the diagnosis of poliomyelitis is usually easier than in those cases without paralysis. There are numerous diseases and conditions which should be considered:

1. Difficulty in motion or loss of power as result of injury, strain or fracture. A history may not always be obtainable in regard to trauma. Early in 1937 a sixteen-month-old white male infant was sent to Isolation Hospital with paralysis of the right leg thought due to poliomyelitis. A careful examination of the right thigh gave definite crepitus to the palpating fingers. X-ray confirmed the diagnosis of fracture of the right femur.

2. Difficulty in motion carried by a painful joint:
   (a) Acute rhemuatic fever.
   (b) Serum sickness involving the joints.
   (c) Tuberculosis of the joints or spine.
3. Pseudo paralysis:
   (a) Rickets and scurvy.
   (b) Syphilitic Periostitis or osteitis.
4. Paralysis of other types
   (a) Transverse myelitis
   (b) Peripheral neuritis
   (c) Bells Palsy
   (d) Paralysis in purulent meningitis.

Paralysis from various causes:

In this connection may be mentioned brain tumor, brain abscess, cerebral thrombosis or embolus, especially from endocarditis.

Prophylaxis:

The prophylaxis of poliomyelitis must be considered from the point of view both of the community and the individual. Public health measures of control and individual immunization have failed to prevent satisfactory means of preventing outbreaks or epidemics of poliomyelitis. This general haziness is reflected in the mass fear, hysteria and superstition existing in the minds of the laity. The public sensing this lack of knowledge by the medical profession immediately offers suggestions. Landon and Smith[15] cite suggestions during the 1916 outbreak in New York City, from ordinary table salt to a serum made from the "blood of frogs" and intraspinal injections of fresh human saliva. In 1933 during the epidemic of poliomyelitis in New York City it was a common practice in the lower east side for mothers to hang small sacks containing camphor around their children's necks as a preventative against the disease rivalling the time honored asafoetida bags of the Sunny South. It is generally assumed that the disease is spread by carriers and mild cases. Quarantine is advisable, as it is reasonable to suppose that the isolation will reduce the number of carriers. It is obvious that abortive cases will escape diagnosis and certainly diminish the effect of isolation. The period of quarantine is usually three weeks from the onset of febrile symptoms. It is obvious that parents or older children and contacts handling food should likewise be isolated. In times of an epidemic or outbreak in a small community there are certain measures which might reasonably be adopted by all members of the community. Persons should avoid mingling with crowds and unnecessary gatherings should not be permitted. The virus of poliomyelitis remains viable in milk and butter and may possibly cling to other food stuffs. Milk for drinking should be pasteurized or boiled. Protective measures against insets should be taken. It is well for individuals to keep physically fit with plenty of rest, fresh air, proper food, exercise and elimination. It has been a custom for many years for physicians to advocate the use of an antiseptic chemical, sprayed or douched in the nose. Amoss and Taylor have shown neutralizing bodies in the nasal secretion of human beings. Likewise they have shown that the nasal secretions are normally destructive to the virus.

These measures mentioned perhaps may afford some degree of protection. It is improbable that one can hardly hope to escape all exposures. In fact, occasional slight or subclinical exposures are probably necessary for building up so called natural immunity. The epidemiology of poliomyelitis, or we might say the bulk of experimental data is that it is a contact disease like measles and diphtheria and the etiologic agents enter the body through the upper respiratory tract.

PASSIVE IMMUNIZATION

Immunization of all children in certain communities with convalescent serum has been carried on or attempted. The preventive dose of convalescent serum is from 10 to 20 cc. If normal human serum is employed, the dosage is doubled or if whole blood is employed 40 to 80 cc. is necessary. The convalescent serum, human serum, or whole blood is introduced intramuscularly. It is not necessary to type whole blood when given intramuscularly. Theoretically to become immune a child needs a decrease in the susceptibility of the neurones. There is a need of an increase of tissue immunity rather than an increase of antibodies in the blood. Schultz and Gebhardt[16] have shown that a high concentration of antibodies in the blood plasma cannot be depended on to protect against even small doses of the virus although the administration of a potent serum does have the effect of diminishing the quantity of virus free to initiate infection. One must keep in mind that passive immunity conferred by convalescent serum at best is for a very short time and in case of continued possible exposure the injection should be repeated every three or four weeks.

Physicians and nurses in constant contact with poliomyelitis occasionally develop the disease in spite of convalescent serum administered. In Los Angeles during the 1934 outbreak, convalescent serum failed to afford any marked degree of passive immunity for of 207 of the hospital personnel thus treated 48 or 23 per cent contracted the disease in three weeks.

SPRAYS

The medical profession in July, 1936, in several Southern States received special bulletins announcing that poliomyelitis vaccines have not been effective as a control measure and their use is not recommended. The bulletins stated at length that experiments indicate the usual natural route of the poliomyelitis infection is through the nasal mucosa by way of the olfactory nerve tracts. Armstrong and Harrison[17] of the United States Public Health conducted experiments in monkeys using a picric acid sodium sulphate nasal spray. This was reasonably successful in protecting monkeys against the poliomyelitis virus. Its value as a poliomyelitis preventative in man had not been definitely determined. A great deal of interest and speculation followed the use of this spray and later Armstrong and Harrison[18] in public health reports of July 17 1936 issued the following statement:

"The evidence regarding this method is as yet based entirely upon animal experimentation and the proposed spray is not at present to be regarded as of proved value in the prevention of poliomyelitis in man. It may be advisable to await the results of further trials before giving the method general application." The early applications at least should be administered by a physician. The experimental work on animals is still being pursued The tentative procedure is therefore subject to such changes as may be dictated in the future. A later survey by Armstrong[19] in Alabama in 1936 of certain districts, those electing to spray and not to spray constituting the test and control groups for study. The analysis of the two groups is as follows:

1. Chemicals capable of blocking the olfactory route of infection must be thoroughly applied to the nasal vault if maximum protection is to be assured.
2. Many children actively resist and thus render spraying difficult.
3. Sympathetic parents unfamiliar with the anatomy of the nose, are not, as a class qualified to administer intranasal prophylactic properly.
4. Complaints were registered in a house to house survey by 885 from among 4,631 sprayed individuals. Headache, temporary nausea, burning of nostrils, symptoms of head cold, irritated throat and irritation of eyes in

the order named, were the most usual complaints. We found similar complaints among senior medical students on duty at the Isolation Hospital during the outbreak of 1936.

5. Seven instances of hypersensitivity or idiosyncrasy to the drops were reported from the epidemic area.

6. The actual incidence of poliomyelitis in the group sprayed by whatever method was somewhat less than the calculated incidence bored upon the rate in the unsprayed control group (16:21-7).

7. The occurrence of cases in persons who had sprayed for several weeks in the advised manner throws question upon the method as employed.

It seems probable that the most effective method of application as well as the most ideal solution has not been found yet. Investigativ work should therefore be continued.

Recently studies have been directed by the use of certain chemicals applied to the olfactory mucosa to modify its permeability to the virus of poliomyelitis. Three independent groups of workers shared in the experiment. The result of initial tests with tannic acid did not appear encouraging. These writers next directed their efforts to other agents among them trinitraphenol (picric acid) paranitrophenol, trinitrocresol, and mercurochrome. All of these agents were found to exercise a definite protective action but one of these agents exercised an unusual duration of resistance. This agent was zinc sulphate Shultz and Gebhardt[20] made an exhaustive study with this chemotherapeutic agent. More than 240 test animals have been given the zinc sulphate treatment and the results compared with 300 untreated controls. Two or three successive daily intranasal sprays with a 1 per cent solution of zinc sulphate in physiologic solution of sodium chloride (.9 percent) will generally protect all or nearly all of the animals so treated against virus administered one month after the treatments have been applied. This degree of protection is exhibited under sufficiently heavy instillation of virus to bring down 90 per cent of all the controls. Many of the treated animals have survived repeated virus instillation for two or three months following one or more intranasal applications of the zinc sulphate solution. This apparent success with animals suggests to the authors the desirability of carrying the investigation over to man. Definite suggestions outlined are:

1. The use of a solution containing 1 per cent zinc sulphate, 5 per cent sodium chloride and 1 per cent local anesthetic pontocaine.

2. The solution should be prepared with U.S.P. zinc sulphate, U.S.P. sodium chloride and distilled water.

3. It should be applied at least once every two weeks during times when risk of infection is great. Probably more desirable to apply the agent on two or three successive days and once every two weeks there after.

4. It should be applied with an atomizer equipped with a suitable tip and in accordance with the technique described by Dr. Max Peet.

5. The zinc sulphate solution thoroughly applied may be somewhat painful and Dr. Peet suggested the addition of the pontocaine solution .5 per cent.

6. The prophylactic zinc sulphate treatment should be administered under the auspices of national health organizations aided by members of the medical profession who have been instructed in the special technique to be followed.

7. Complete records of all persons treated should be kept in the local health office.

8. All side actions are important, local or general effects should be noted.

9. All undesirable effects from the treatment should be reported to the local health officer.

Peet, Echols and Richter,[21] of Ann Arbor, who also have been investigating the zinc sulphate solution found the actual clinical application of zinc sulphate to the olfactory area more difficult than they anticipated. A number of children sprayed with methylene blue showed that in practically all instances the solution did not go above the middle turbinate if an ordinary atomizer was used with the tip of the spray introduced only slightly away from the nostril. From experiments in which radiopaque substances and certain dyes were used it was evident that the spray must be applied directly to the olfactory area. Such application may be made under direct vision with an atomizer with a long narrow metal tip. Nasal douching of infants and young children with the head in the Proetz position might accidently force some of the anesthetic into the accessory sinuses and pharynx, abolish the cough reflex and predispose the children to pneumonia. In cases of small children the pontocaine should be omitted. A special spray tip may be introduced to the region of cribriform plate under direct vision, lighted with a head mirror. At least 1 cc. of the solution should be sprayed to cover completely the olfactory area. A similar procedure is then carried out on the other side. If the nasal passage is occluded on direct inspection the nasal mucus membranes should be shrunken by the application of ephedrine or benzedrene inhalant preliminary to the insertion of the spray tip. The writers suggest in an extensive field application of the zinc sulphate for the prevention of poliomyelitis, a single spray repeated at intervals of two weeks would be sufficient. They express the belief that this procedure can be carried out effectively only by a trained technician. Physicians who attempt this procedure should certainly familiarize themselves with intra-nasal work.

Toomey[22] recently stated that spraying the olfactory area with chemicals as a prophylactic measure on the theory that these chemicals will destroy the virus at the portal of entry is true so far as the experimental disease is concerned. His explanation is that they prevent approximation of axis cylinder and virus. However such procedures (the administration of 1 per cent zinc sulphate intranasally) do not prevent the experimental disease from occurring after a sufficient amount of virus is introduced intravenously, nor do they prevent the production of the disease when the virus is introduced by way of the gastro-intestinal tract. If this be true very little may be hoped for by the use of the zinc sulphate spray.

VACCINES

Active immunization against poliomyelitis is still in the experimental stage. Two years ago, Kolmer[22] working in Philadelphia and Brodie[24] and Park in New York developed substances which they believed capable of producing active immunity. Kolmer treated with a 1 per cent solution of sodium ricinoleate a 4 per cent suspension of monkey spinal cord containing virus, ripened the product two to four weeks in a refrigerator, and after sterility tests in aerobic and anerobic culture, showed that the preparation was still able to cause poliomyelitis in monkeys by intracerebral injection, although the disease had a longer incubation period and was less severe than normal. With this attenuated virus he inoculated children and proved they had appreciable amounts of antibody in a week's time. The doses advocated were three injections .25, .50 and .50 cc at intervals of a week for children one to three years of age with slightly larger doses for older children. Reactions both local and constitutional have followed the injections. We must not forget that this virus is attenuated and not killed. A total amount of 22,022 c.c. of Kolmer's vaccine was distributed through 719 physicians by the Research Institute of Cutaneous Medicine and the William Merrell Company of Cincinnati. This has been sufficient for the immunization of 12,000 individuals.

Brodie's vaccine contains monkey spinal cord virus inactivated by the addition of 0.1 per cent formalin for sixteen hours. Of a 10 per cent suspension he administers 1 to 2.5 cc intracutaneously, subcutaneously in the abdominal wall and has repeated the injections after 10 to 14 days. Brodie reports that from 9,000 individuals who have received vaccine less than 1 per cent developed a general reaction. Three of the vaccinated group out of 564 individuals exposed developed the disease on the day of injection and one thirteen days later. Brodie states it takes three weeks to obtain full response from the vaccine.

Controlled experiments are absolute requisites to guage the value of a vaccine.

Flexner in **Science** for October, 1935 (82,-420) states:

"No adequate evidence has been presented showing that the virus of poliomyelitis may be attenuated so as to preserve its immunizing properties, while being deprived of its potential paralyzing power" and " when the virus is actually destroyed, it no longer possesses immunizing power, when it is reduced in concentration it immunizes animals and may paralyze others."

Leake[25] in 1935 reported 12 cases of poliomyelitis with definite paralyses in infants and children shortly after the administration of poliomyelitis vaccine. Five children out of eight receiving vaccine "A" died, while four cases receiving vaccine "B" became paralyzed and one of these cases died. One fatality occured six days after the second dose, one twelve days after the first dose, two paralytic cases and one fatal case eight days after the first dose. A fatal case nine days after the first dose another fatal case ten days after the first dose, a paralytic case eleven days after the first dose and another paralytic case fourteen days after the first dose." Vigorous discussion in regard to both Kolmer and Brodie's vaccine took place at a meeting of the American Public Health Association in Milwaukee and at the Southern Medical Association in St. Louis. Since this vigorous debate neither of these vaccines have been used since.

SERUM TREATMENT OF POLIOMYELITIS

There are certain factors regarding the course of this disease before evaluating the results of so-called specific or serum therapy.

1. Many patients ill with poliomyelitis recover without any form of treatment.
2. No distant relationship exists between early severe symptoms and the later degree and extension of the paralysis.
3. Poliomyelitis may exist in a mild state in one locality with practically no mortality and on the other hand in another surrounding community severe cases with high mortality. Statistics are therefore subject to great variations.

With these above facts in mind it remains a difficult problem to evaluate reported therapeutic results when no balanced controls are maintained. A confused mass of good and bad results may be isolated from a voluminous literature on serum therapy. Attention was directed to the neutralization of poliomyelitis virus in virus with convalescent monkey serum by Levadite and Landsteiner in 1910. It is well known that convalescent serum, human or monkey, will neutralize poliomyelitis and protect a monkey if injection within 24 hours after the intercerebral injection of the virus but it has been impossible to abort the disease in monkeys when the serum has been given later in the incubation period or after the monkey has developed symptoms of the disease. We know too, unfortunately, in the human being the therapeutic use of the serum might take place after the central nervous system has been invaded, since the disease cannot be diagnosed earlier. In no disease as yet has a convalescent immune serum shown to be effectual in any but a preventable manner when a filterable virus is the etiological factor.

An editorial in the Journal of the American Medical Association of August 8, 1936 Vol. 107 No. 6 has been the basis of much controversial argument from leaders in controlled experiments in the treatment of large series of cases. In 1931 a series of 1100 cases nearly equally divided and observed by three different groups of workers, namely the Health Department of New York City, the Academy of Medicine and Kramer and Aycock. Among 509 patients treated in the preparalytic stage the fatality rate was 3.8 per cent as compared to a similar rate of .9 per cent in 408 untreated preparalytic patients. Among the treated group 68.8 per cent had no paralysis at any time compared to 73.7 per cent in the untreated group. Persistent paralysis after three to five months was noted in 19.6 per cent among the treated patients and in 11 per cent of the untreated.

At Willard Parker Hospital in 1935 of the approximately 750 patients cases of poliomyelitis none received any serum in the hospital. The mortality was 2.5 per cent .

The chief requisite even in the preparalytic stage when the diagnosis may be in question is absolute rest in bed. Handling of the patient should be reduced to a minimun. Gentle examination should be a prerequisite of any physician treating these cases.

Lumbar puncture should be done at the onset when poliomyelitis is suspected. The puncture should always be done under local anesthesia. The early hyperesthesia instability of patients should never be overlooked. The lumbar puncture gives reliable information early in the disease; in addition it allows relief of pressure, a measure of definite value in cases with meningitic symptoms.

Sedatives are necessary early in the disease to control pain and discomfort. Pain and tenderness may be relieved by the local application of hot packs. The patient should be isolated immediately in calm surroundings over a considerable period.

Where paralysis has developed in the extremities the involved muscles should be given support to avoid any strain put upon them. Every effort should be made to recognize your cases early so the patient may be protected against disastrous effects of activity or stretching weakened muscles.

We have, for years, advocated the hard bed at the onset, that is a board is placed under the mattress sufficient to cover the entire spring. In the beginning of the disease with either weakened or paralyzed muscles proper mechanical restraint is afforded. Temporary splints in the beginning during the first two weeks of the disease. This in turn in cases of necessity is followed by properly applied casts. It is obvious that orthopedic consultation and treatment should be a part and parcel of every case of poliomyelitis.

Respiratory difficulties in poliomyelitis are of three types: paralysis of the primary respiratory muscles; paralysis of the respiratory nerve centers; secondary obstruction to respiration due to vomiting and unswolled secretions in the air passage because of paralysis of the muscles of deglutition.

The Drinker apparatus has been used extensively in the treatment of paralysis of the muscles of respiration with good effect. Undoubtedly it has been the means of saving a considerable number of lives.

When pharyngeal paralysis occurs with its accumulated secretions, aspiration of these secretions by mechanical means is an important factor. Elevation of the foot of the bed and allowing postural drainage is a necessity, Avoid giving atropine to dry up secretions since it may result in the production of sticky secretions which are difficult to remove.

These patients are fed by gavage or transfusions. Water may be administered parenterally and by rectum. A respirator has no place in treating the above type of patient.

Our treatment of patients with involvement of the respiratory centers (bulbar types) has been very unsatisfactory, so far as the respiration is concerned. All of our bulbar cases with one exception have died this year.

A final word in regard to the after care of poliomyelitis. This should be carried on for years by those skilled in its management. It is generally agreed by most orthopedists that 60 to 75 per cent of the muscles in any degree affected have returned to normal. This after care represents the difference between a hopeless cripple and an independent though handicapped individual.

REFERENCES

1. Underwood, M: Treatise on the Diseases of Children with General Directions for the Management of Infants from the Birth. London 1784: a new ed., London, Mathews, 1789; 4 ed., London, Mathews, 1799
2. Badlam, J: Paralysis in Childhood, Four Remarkable Cases of Suddenly Induced Paralysis in the Extremities, Occurring in Chilnsen Without an Apparent Cerebral or Cebro-Spinal Lesion. Lond. M. Gaz. N. S., 17, 215, 1836.
3. Heine, J. Beobachtungen Uber Lahmungszustande der Unteren Extremitaten und deren Behandlung Stuggart, F. H. Kohler, 1840.
4. Kennedy, H. Dublin, M. Press, September 26, 1841.
5. Strumpell, A. Ulber die Acute Encephalitis der Kinder Allg. Wien. Med. Ztg. 29: 612, 1884.
6. Medin, O. Ueber eine Epidemic von spinaler Kinderlahomung Uerhandl. d. X Internat. Med. Korgr, 1890.
7. Wickman, I. Beitrage zur Kenntnis der Heine-Medinschen Krankheit (Poliomyelitis Acute Und verwandter Erkrankungen) Berlin, Karger, 1907.
8. Landsteiner, K., and Popper E. Mikroscopische Praparate von linem menschlichen undzrvei. Affenruckinmarken Wien klin Wehnschr 21:1830, 11908.
9. Flexner, S., and Lewis, P. A. The Transmission of Acute Poliomyelitis to Monkeys, First note J.A.M.A. 53:1639, 1909.
10. Flexner, S, and Noguchi, H. Experiments on the Cultivation of the virus of Poliomyelitis. Fifteenth note J.A.M.A. 60:362, 1913.
11. Rosenow, E. C. Production of Antipoliomyelitis serum in horses by inoculation of the plemorphic streptococcus from poliomyelitis, J.A.M.A. 69:-261, 1917.
12. Amoss, H. L., and Eberson, F. Therapeutic Experiments with Rosenow, Antipoliomyelitis serum. J. Exper. Med., 27:309, 1918 Alstr: Proc. Soc. Exper. Biol. and Med. 15:43, 1917-1918.
13. Stimson, P. M., A Manual of the Common Contagious Diseases, Philadelphia Lea and Feibeger Chap. XIV, 936.
14. Neal, J. B., DuBois, P. L. Abramson and Associates, Report of the 1916 Epidemic of Poliomyelitis, from a Clinical and Laboratory Standpoint, Collected Studies of Bureau of Laboratories City of New York, 9:77, 1916-1919.
15. Landon, J. F. and Smith, L. W. Poliomyelitis, New York City, The MacMillan Company, 1935.
16. Schultz, E. W., and Gehardt, L. P. Observations on the Prophylactic Value of Specific Immune Serum in Experimental Poliomyelitis, Jour. Ped., 7,332, 1935.
17. Armstrong and Harrison: Public Health Reports 51:203-215, 1936.
18. Armstrong and Harrison: Public Health 7:17, 1936.
19. Armstrong
20. Schultz, E. W. and Gebhardt, L. P. Zinc Sulphate Prophylaxis in Poliomyelitis, J.A.M.A. 108:26: 2181-2184, June 26, 1937.
21. Peet, M. M., Echols, D. H. and Richter, H. J. The Chemical Proplaxis for Poliomyelitis: J.A.M.A. 108: 26, 2184-2187, June 26, 1937.
22. Toomey, John A., Active and Passive Immunity: J.A.M.A. 109:4021406, Aug. 7, 1937.
23. Kolmer, J. A., A Successful Method for Vaccination Against Acute Anterior Poliomyelitis, Jour. Am. Med. Assn., 104, 456, 1935.
24. Brodie, M.: Active Immunization Against Poliomyelitis, Am. Jour. Pub. Health 25, 54, 1935.
25. Leake, J. P., Poliomyelitis Following Vaccination Against this Disease. Jour. Am. Med. Assn: 105, 26, Dec. 28, 1935. We ave drawn freely from the International Committee for the study of Infantile Paralysis. Waverly Press Inc. 1932. Poliomyelitis, Landon, John F. and Smith, Lawrence, W. MacMillan Co., 1934 and Stimson. Philip M., Manual of the Common Contagious Diseases, Lea and Febiger 1936 in the preparation of this paper.

From Pediatric Department,
University of Tennessee.

20 S. Dunlap.

The Diagnosis and Treatment of Cancer of the Breast*

H. A. GAMBLE, M.D., F.A.C.S.
GREENVILLE, MISS.

It will be my endeavor this afternoon to give as succinctly as possible my personal viewpoint in regard to this subject resulting from a surgical experience of some thirty years.

We have all come to a full realization of two essential facts in regard to cancer, first that in its early stages it is purely a local disease and secondly that its cure depends inevitably upon its early recognition.

For the past fifteen years there has been a steady stream of publicity intended to educate women that any soreness, lump or discharge from the brest is abnormal and demands the most careful examination. This educational campaign has borne fruit. We now see a majority of these patients in a very much earlier stage than we did twenty years ago or even ten years ago. Unfortunately we still see many cases of cancer months after the first symptoms were manifested and still more regrettable is the fact that many of these unfortunates have sought medical advice when the lesion was first noticed and have been advised to await further developments, and have had their fate sealed then and there as inexorably as the day of doom.

When one stops to consider that when one can detect the earliest evidence of cancer, when for instance the lesion may be no larger than a pea or a buckshot, that the cancer cells have already been actively proliferating and permeating the surrounding lymphatics how unwise and fallacious such advice is.

It matters not how certain we may feel that the lesion present is benign in character, that it is a cyst or a fibroma, a cyst adenoma, a papilloma or chronic mastitis, we have no right to jeopardize that patient's life by advice which to say the least is unwise—when it is possible by a biopsy and frozen tissue section to state unequivocally within a few minutes' time whether or not cancer is present. Our experience has been over a period of fifteen years that approximately one out of ten breast lesions which are not patently cancerous and submitted to biopsy prove to be malignant. We feel that one is thoroughly justified in routinely advising biopsies when one can by a minor operation detect cancer in this percentage of early cases and thereby insure the cure of the patient. General statistics show that when the condition is diagnosed before metastases have taken place in the axillary glands at least 70 per cent are permanently cured and that after axillary involvement only 20 percent are cured. Our own experience has been much more favorable in the first class of cases and in the second class with axillary involvement we have seen but one ten-year cure. Five years—yes, but only one of them have lived ten years without metastases deevloping. I might add that it has not been because of an ablation not radical enough in nature for we have seen only two recur in the wound regardless of how advanced the disease and and none in the axilla in some seventy-odd operative cases. It has been evident that these cancer cells had already found a lodgement elsewhere before any local masures were taken toward eradicating the disease.

We feel that Handley's theory of the spread of cancer by permeation of the lymphatics eccentrically in all directions is based upon SOUND observation and substantiated by clinical experience and explains the various phases of metastases which we encounter. Undoubtedly cancer cells may sometimes be carried to the regional lymphatics by an embolic process but this certainly is not the most important means of dissemination. Handley's theory gives to us the most logical reason for the success of total ablation of the breast with all fascial planes and is the cornerstone upon which this operation rests.

The prognosis is influenced by many factors, the two most important of which are the time of recognition and the degree of malignancy of the invading cancer cell. The more embryonal the type of cell the quicker it metastasizes. The pathologist can practically tell the life expectancy of any cancer patient; in other words a grad 4 cell, according to Broder's classification is almost certainly fatal because of its early metastasizing. Because of the difference in the degree of virulence of the various grades statistics which do not take this factor into consideration lose much of their force.

---

*Read before the Delta Medical Society, Greenwood, Miss., October 13, 1937.

Pre-eminently early recognition, while the lesion is purely local, is the most important factor affecting the prognosis. Other factors are age, pregnancy, lactation, whether one is thin or stout, and the presence or absence of constitutional disease.

The greatest adjunct to the treatment of cancer since Halstead introduced the radical operation has been radium and deep X-ray therapy. From an operative standpoint there has been no, or very little, improvement in results over those obtained by him with possibly one exception—the use of the actual cautery instead of the knife.

It is too early fully to evaluate the effect of the Roentgen-ray. The higher the grade of malignancy the more radiosensitive the cancer cell and the lower the grade of malignancy the more radio resistant they are. In the first, we are still confronted with the fact that while the parent growth will melt away under its influence, metastases which have probably already occurred will not be affected. While in the more highly differentiated and radioresistant cell one cannot but wonder whether valuable time has not been lost by preoperative radiation. Auchinscloss says that he has never seen a preoperative radiated breast cancer in which living cancer cells could not be found.

At the Memorial Hospital, New York, which is the largest cancer clinic in the country there has been made an intensive study of this subject. It is claimed for deep x-ray therapy that in cases of axillary involvement there have been 25 per cent of the cases in which no living cancer cells could be demonstrated. Adair in a series of cases treated with preoperative radiation has improved the five-year cures by 5 per cent. It is logical to assume that if postoperative radiation is effective that preoperative would be more so. However, the fact that 25 per cent of the cases with axillary involvement were free of cancer cells in the lymph glands has been the main factor in our decision in employing pre-operative radiation with the 200 KV machine.

Dr. A. C. Scott, of Temple, Texas, has over a long period of years employed the actual cautery (Down's) in the operation for radical ablation of the breast with an outstanding record of cures. We use it and we have not found the objections raised against it valid. The skin wound is not devitalized to such an extent as to interfere with kindly healing. In regard to the prevention of metastases it is our experience that when you employ the original Halstead technique or the cautery that there is rarely local recurrence and that the metastases have already spread beyond the bounds of the operative field and will be uninfluenced by any measures.

It is universally conceded that in early cancer of the breast surgery is the logical method of approach for the removal intact of the permeated area of the lymph vascular system which surrounds the primary growth and of the lymphatic glands which have been embolically invaded along the trunk lymphatics of the area concerned.

Halstead and Meyer were among the first to lay stress upon wide excision of the involved tissue and complete axillary dissection.

Handley has more recently enunciated in more definite terms the operative principles and the underlying reasons therefor and I feel that I can do no better than to quote from an article written by him verbatim: OPERATIVE PRINCIPLES.—"The main operative principles deduced from the permeation theory are these:

1. The area which needs widest removal is that in which the growing edge is situated, viz. the deep fascia, for in this area is found the lymphatic plexus which forms a highway for the spread of the disease.

2. The area of deep fascia removed must be circular in outline, since permeation spreads with approximate equality in all directions from the primary growth.

3. The primary growth must always be the centre of the area of fascia removed.

4. The skin and muscles being secondarily involved over a smaller area and less widely than the fascia, the removal of a smaller area of these tissues will suffice.

The removal of the primary lymphatic glands in continuity with the primary growth is, of course, essential, since emboli of cancer cells reach them early along the trunk lymphatics."

We have adapted, in our practice, these underlying principles combined with the employment of the actual cautery in the removal of the breast, except as regards the fourth stipulation. There we are satisfied that the operation should be as radical as for the fascia.

Our experience has been that approaching the axilla first through preferably a Rodman incision that there is less loss of blood and less shock to the patient than when the axilla is cleaned out afterward, therefore, through a Rodman incision the pectoral muscles are severed near their attachments to the humerus and the coracoid process, and the costocoracoid membranes incised and the axillary space opened, all glands and fatty tissue being removed from the apex downward; vessels being caught and divided between forceps and ligated with fine silk, after complete cleaning out en bloc of all tissue around the axillary vessels and nerves, over the subscapula muscles, and over the thoracic wall with the preservation of the long thoracic nerve. Two elliptical incisions are made through the skin at least three inches from the growth which should be equally distant from both incisions. The skin is then undermined with the cautery to as high a level as the clavicle, across the sternum in the midline, down over the ensiform cartilage, and below over the upper abdomen and lower part of the thorax. The fascia along the margins of this denudation is then severed with the cautery and beginning from within outward the breast with the axillary contents—the pectoral muscles and all fascial planes—is removed in one mass. In the use of the cautery we have found that there is a minimum amount of hemorrhage—only the perforating vessels through the intercostal spaces needing ligating.

We desire to call particular attention at this point to the fact that the anterior layer of the sheath of the rectus muscle is removed with this tissue. Next to metastases occurring in the axillary glands they probably occur more frequently in the abdomen and liver through the lymphatics entering the falciform ligament and the abdomen at the chondro-sternal junction.

After all bleeding has been controlled, the wound is closed by, first mattress sutures of silver wire which take the tension off the skin edges and secondly silk-worm gut spaced at appropriate intervals. A drain is left in the axillary space at its lowest point.

With the Rodman incision the resulting scar lies in front of the axilla and allows for a healthy freely movable covering of the axillary space. This also permits of early use of the arm and prevents cicatricial contractures taking place.

We are convinced from our experience that complete ablation of the breast without regard to cosmetic effects so far as the skin is concerned, making the incision well beyond all possible areas of permeation with complete removal of all fascial planes has been responsible for the low incidence of recurrence in the wound which we have had.

We are really more radical in our views with reference to this feature than Handley as he claims that he can make a much smaller skin incision but must be careful to get well out beyond all possible areas of permeation in excising the fascia. In some cases one will find that there is a large raw surface left which Halstead advises covering with skin grafts at the time. Personally we have preferred to reflect a flap of skin either from the abdominal wall or from below the scapula over this area, and have found that it can always be closed satisfactorily in this manner.

There are certain definite contra-indications to surgical removal of the breast. When it is obvious that metastases have already occurred surgery can offer no more than a palliation which we feel can best be accomplished by the use of the x-ray. In advanced cancers with metastases into the skin surrounding—operation offers no hope. Ordinarily if the lymphatics of the axilla are fixed, enlarged and intimately adherent it is usually useless to operate. However, one of the most gratifying cases in my experience occurred in a patient in whom the glands were so intimately adherent to the axillary vein as to necessitate a section of it being removed with them. This patient made an excellent recovery and lived for twenty years without recurrence. If the axilla has been invaded to such an extent as to cause oedema of the arm, if there are metastases to the bone or viscera, if the condition is of an acute fulminating type, or if there is present some constitutional disease which would increase materially the risk of operation and possibly end fatally anyway in the course of a short time, operation is not indicated.

Finally, I feel that it is incumbent upon us as physicians to teach the public the necessity for early recognition of the condition. While the cancer age is usually considered after forty, it affects all ages. Every young girl should be taught to watch her breasts for the appearance of any unusual signs—either of pain or swelling, that she should palpate her breasts several times a year throughout her life. In this way there will be a more early recognition of any pathology that may be developing. Most women can tell you very definitely where a lump in the breast is even if upon examination you cannot at first determine it yourself.

One of the reasons for the late recognition of cancer of the breast is that the organ is hidden from view. You rarely ever see a fatal case of cancer of the face. These lesions are always treated in their incipiency, and we feel that as said above it is incumbert upon us to teach our patients the necessity for the early recognition of any abnormal condition present.

Again I wish to emphasize the fact that the lowering of the mortality rate in cancer is dependent practically entirely upon its early recognition.

The Treatment of Varicose Veins*

F. W. SANDIFER, JR., M.D.
GREENWOOD, MISS.

DEFINITION AND LOCATION. Dilated or varicose veins may occur anwhere in the body but are most frequent in the superficial venous supply of the lower extremities. This is what might be expected. With the assumption of the upright position an unusual strain is placed upon the saphenous network, and its veins, because of their superficial position, are deprived both of the support of surrounding muscular tissue and of the "milking" effect of muscular activity.

ETIOLOGY. The primary cause of varicose veins is practically always back pressure transmitted from the intra-abdominal veins. There are many predisposing causes. Varicosities develop most frequently during early adult life, which is the period of hard work for males and the period of childbearing for females. Pregnancy, indeed, is a very important cause. During the gestation period an increase in the volume of blood flow from the hypogastric vein is physiologic and results, in turn, in an increased volume of blood in the external iliac vein. The pressure of the pregnant uterus on the vein causes increased intravenous pressure which is transmitted backward toward the femoro-saphenous valve and to the saphenous vein, with resulting varicosities. Postpartal thrombophlebitis is another fairly frequent cause of varicose veins. Conductors, cashiers, clerks and other individuals whose work causes them to remain on their feet, yet inactive, for long periods of time, are particularly likely to develop varicosities. The frequent association of varicose veins with hernias and other defects suggests an hereditary connective tissue weakness, and statistical evidence exists of a definite familial and hereditary factor.

PATHOLOGY. The results of the increased venous pressure which is the underlying cause of all varicosities are manifested in several gradual but progressive stages. First the veins hypertrophy. Then they dilate and elongate. As elongation progresses the walls give way in various areas and sacculations occur. The varicosities which occur during pregnancy may disappear after the gestation is concluded, usually, however, to reappear during successive pregnancies. In all other instances the process tends to be a continuous one. Infection is usually present, due to the fertile soil furnished by the stagnant blood in the dilated venous segments, and the infective process, plus the elongation of the veins, terminates in fibrosis, which may go on to calcification. As the stagnation in the large veins spreads into the smaller veins of the subcutaneous and cutaneous layers, an anemia of the tissues develops, associated with a lowered tissue resistance, which is manifested as cyanosis or edema of the parts, eczema, pigmentation, "spider bursts," and ulcers.

CLINICAL COURSE. Untreated varicosities practically always present complications, the most frequent of which is ulceration. Ulcers are the result of congestion, anemia and malnutrition of the parts, upon which the superimposition of only slight trauma is necessary for their development. They are most frequent upon the inner aspect of the calf, just above the internal malleolus, and the state of the surrounding skin and subcutaneous tissue determine whether they will heal promptly or become chronic. If the surrounding tissue is indurated, bluish and tender, or if there is superficial thrombosis, the ulcer is likely to be chronic. The malnourished, edematous skin of the lower leg is often the site of resistant eczema or of ringworm infections, which may occur alone or in association with ulceration.

Rupture of the varicosity is not unusual, and sometimes there may be a rather serious loss of blood before the accident is de-

---

*Read before the Twenty-Sixth Semi-Annual Meeting of the Delta Medical Society, Greenwood, Miss., December 13, 1937.

tected. The bleeding is usually easy to control by pressure over the site plus elevation of the limb. The most serious complication of varicose veins is thrombophlebitis, which has an ideal site for development because of the slowing of the blood current in the dilated segments and the changes in the vessel walls.

SYMPTOMATOLOGY. Varicose veins per se rarely give rise to symptoms other than tingling sensations, a sense of fullness in the legs, or easy fatigue on exercise. The occasional patient complains of cramping sensations in the calf muscles, or of pain along the femoral nerve from pressure of the heavy, dilated veins. The various complications of varicose veins, chiefly ulceration, give rise to the complaints to be expected under the circumstances. Ulcers are frequently very painful, though the degree of pain is not necessarily related to the extent of the ulceration. A small ulcer, for instance, may be excruciatingly painful because of an exposed nerve in its bed.

DIAGNOSIS. The diagnosis of varicose veins is usually simple, and can be made merely by inspection. Inspection, however, is by no means sufficient. A thorough general examination as well as local study is indicated, and the patient's symptoms should be carefully evaluated. Varicose veins often occur in association with flat foot, arthritis, sciatica, or various forms of arterial insufficiency, and these conditions, if they are present, must be recognized and treated if the treatment of the varicosities is to be successful.

Differential diagnosis is concerned with only a few conditions. A soft, compressible, fluctuant varicosity in the upper thigh, for instance, must be distinguished from a possible femoral hernia. The dilated, superficial veins which follow deep venous thrombosis must be distinguished from varicosities. Such dilated veins represent merely a compensatory hypertrophy and differ from varicosities in that they lie on the lateral aspect of the thigh and lower leg and do not follow the typical course of the internal and external saphenous veins.

Congenital abnormal arteriovenous anastomoses, which are rather frequently confused with varicose veins, actually have many points of difference. Since they tend to occur considerably earlier in life than varicose veins, they should be suspected in young persons with large veins in unusual locations or with chronic leg ulcers. The affected limb is likely to be larger and warmer than the other. Comparative study of the venous blood from each limb will reveal the arterial character of the blood from the affected side, while the exact diagnosis can be established by arteriography, which visualizes the abnormal vascular connection, and the oxygen saturation test.

SPECIAL TESTS .The Trendelenburg test is useful in determining the competency or incompetency of the saphenous valves and the efficiency of the communicating valves. It is easily performed. The leg is elevated for a sufficiently long period of time to empty the veins, after which a tourniquet is applied with just enough pressure to constrict the superficial veins. The patient then stands erect. If the veins remain collapsed until the tourniquet is removed, and then fill suddenly, the test is said to be positive, which means that the reflux blood which fills the veins comes from above through incompetent femoro-saphenous valves. If the veins fill suddenly on assumption of the erect position while the tourniquet is still in place, the test is said to be negative, which means that the blood comes through communicating veins with incompetent valves. In the double Trendelenberg test both the femoro-saphenous valves and the valves of the communicating veins are incompetent.

The patency of the deep veins is determined by Perthes' test. The saphenous trunk in the thigh is constricted by a tourniquet, after which the patient walks about and otherwise moves the leg. If the varix collapses, the deep veins are assumed to be patent. If it fails to collapse, and if exercise causes pain in the calf muscles, the deep veins are assumed to be occluded. Another test of the deep venous return is carried out by constricting the superficial veins and then having the patient exercise. If within ten minutes pain and cyanosis develop and the foot and leg begin to swell, it may be assumed that the deep venous circulation is occluded.

Infra-red photography is of value in visualizing the less visible varicosed segments, as well as in following the progress of treatment.

TREATMENT. The simplest and most effective method of treating varicose veins is by the use of some sclerosing agent to obliterate the venous channel. The treatment is free from risk and is highly effective in the properly selected case, but it has definite contraindications which must not be overlooked. The individual with systemic disease such as cardiovascular states, hyperthyroidism or active tuberculosis is no subject for it. It should not be employed in individuals with active upper respiratory infections, until several weeks after the infection has subsided, as it is entirely possible under such circumstances to develop a severe infectious phlebitis at the site of injection. Pregnancy is a contraindication, in the sense that treatment is unnecessary until it has been clearly demonstrated that the varicosities will not disappear with the physiologic termination of the gestation.

Local contraindications to injection include incompetency of the deep veins, as determined by the appropriate tests, and any acute phlebitis of the superficial or deep veins. Phlebitis is best treated with warm compresses while the infection is active, and then by the use of an elastic bandage or other support for several weeks. Even then injection should be undertaken cautiously and in very small amounts.

Numerous sclerosing solutions have been employed, none of which are ideal. The ideal solution causes effective obliteration of the varicosity while at the same time producing no pain or cramp and being free from toxicity. It is obvious that any solution which will not produce a slough when it is injected perivenously is not strong enough to obliterate a vein.

Quinine hydrochloride and urethane, which are used in .5 to 1 c.c. doses, have the disadvantages of causing cinchonism and of affecting the menstrual cycle. Sodium salicylate in .5 to 5. c.c. doses of a 20 to 40 per cent solution may cause salicylism (nausea) and cramping. Invert sugar in 50 to 75 per cent solution, and dextrose in 50 per cent solution, in 2 to 10 c.c. doses, may cause necrosis in diabetics. Sodium chloride and sodium morrhuate are perhaps the most useful solutions available. The former, if used in 15 to 30 per cent solution and in amounts varying from .5 to 10 c.c., is nontoxic and highly effective, but is followed by cramping pain. Sodium morrhuate, in 5 per cent solution, gives equally good results and does not cause cramping. Whatever agent is employed, the first injection should always be small, for some individuals are sensitive.

The injection itself is very simple. The patient stands, or sits on a table with the leg dependent. A two-inch segment of vein is compressed digitally, to restrict the action of the reagent to a limited area. A small needle, 22 to 24 gauge, is inserted into the vein and a small amount of blood is aspirated to make certain that the point is within the lumen. The desired amount of solution is then injected slowly. When it is concluded, pressure is made for 3 minutes over the pucture wound, which is covered with a pledget of cotton soaked in alcohol.

If the thrombosis of the vein extends farther than has been anticipated, the local area may be red, painful and tender. The discomfort is relieved by the use of moist heat and a supporting bandage. Occasionally, even with every care in preventing it, some of the solution may be injected perivenously. The tion of a .5 per cent novocain solution, and the injection of the patient's own blood at the site of the accident may prevent a slough.

Injections are given at 5 to 7 day intervals and continued until all the varicosites are obliterated, including the smaller and less conspicuous veins, which will dilate in their turn if they are not injected. The patient should be warned that the obliteration of one group of veins furnishes no protection against the development of other varicosities if the primary cause continues to operate.

In some cases injection alone is insufficient, and ligation of the vein is necessary before sclerosing solutions are used. Ligation should be done in cases which are Trendelenburg positive and the saphenous veins are incompetent. In such cases the column of blood from the right heart, flowing through the inferior vena cava, the iliac vein and the femoral vein, exerts its pressure on the incompetent saphenous valve, causing pressure on the wall of the vein and finally resulting in sacculation. Ligation of the vein removes this abnormal pressure; the higher it is done, the greater will be the relief of the pressure and the less likely recurrence. Ligation may also be employed in conjunction with injection treatment when the deep circulation is adequate and the veins are patent. It is definitely contraindicated, however, as is the injection treatment, when the deep venous system is involved; such cases must be treated by frequent elevation of the extremity and by the use of elastic bandage. Ligation is an extremely useful procedure when the veins are long and tortuous and are associated with ulcers which are not acutely infected.

Acutely infected ulcers should be treated by warm magnesium sulphate compresses and by elevation of the extremity. Such ulcers are frequent in obese patients, and simple reduction of the overweight often hastens healing. Pastes, liquids, dyes and similar remedies are not as effective as the simpler measures we have outlined. It seems scarcely necessary to add that any patient who exhibits an ulcer should have a Wassermann test, to eliminate the possibility of a luetic origin.

Ligation of the saphenous vein alone results in a cure of 20 per cent of all cases; when it is combined with injection therapy, the successful results approach 90 per cent. Injection treatment, in properly selected cases, has a curability of perhaps 80 per cent. These methods, alone or in combination, are satisfactory in all but the occasional case, and have the advantage of being simple and safe and of not requiring hospitalization. Preliminary ligation reduces the number of necessary injections, and furnishes an almost absolute safeguard against the chance, already remote, of pulmonary embolism following the injection. One must be certain, however, before these methods are employed, whether alone or in combination, that the deep veins are patent and that acute infections and subinguinal lymphangitis and adenopathy are not present.

When these methods are contraindicated for these or other reasons, the vein must be supported by an elastic stocking or bandage, the use of a sponge or adhesive dressings, or the application of Unna's paste boot. There is no reason why varicosities in the thigh should not be injected while a boot is worn on the leg.

Bacterial thrombophlebitis associated with varicose veins is treated by the standard methods of immobilization, heat and vaccines. The application of leeches is old-fashioned, but none the less furnishes a prompt relief for which the patient is grateful.

Extra-Cerebral Causes of Epilepsy

H. RANDOLPH UNSWORTH, M.D.
Assistant Professor Neuropsychiatry
Louisiana State Medical Center
New Orleans, La.

The term epilepsy is applied to various symptom complexes of a recurrent nature, usually involving disturbances of kinetosis, in the forms of convulsions, and an associated interruption of consciousness. Convulsive reactions are regarded as explosive discharges of psychophysical energy in a maladaptive form, into constricted and undesirable channels. Such an explosive discharge of energy may be released by psychic factors, physiological alterations, or structural changes in the cerebrum. When we know the definite chemical, physiological or organic factor which produces the symptoms complex it is known as symptomatic epilepsy.

A convulsive seizure in most patients is thought to be idiopathic, and further inquiry into the explanation of its course is either abandoned or inadequately sought for. The spasm is diagnosed without serious medical, neurological or laboratory study, and the unfortunate patient is given only bromides or luminal. This attitude in respect to the symptomatology of neuropsychiatric problems in general is all too common, in the convulsive states particularly.

A neuropsychiatrist is consulted more frequently in regards to convulsive seizures than any other diseases of the central nervous system. Therefore the problem of convulsions and the possible etiology has always been one of profound interest. Every effort is made to determine the explanation of the symptom.

The literature classifies extra-cerebral causes of so-called epilepsy as due to: toxic states, reflex causes, infectious diseases, circulatory disorders, respiratory disorders, endocrine dysfunctions, and the residual of trauma.

The toxemias are perhaps more frequently mentioned as the causes of symptomatic epilepsy. It is commonly supposed that disorders in the viscera bring about convulsions, though this may be true in cases of children, in adults I have never seen a convulsion that could be explained on the basis of toxemias alone. Convulsions have been observed in children by over-eating, and intestinal putrefaction, but always it has been my experience that these children were spasmophilic, that is, having a tendency towards fits. It is my belief that if a child has a genuine convulsion, regardless of an apparent cause it is on the basis of an epileptic diathesis. It is understood, of course, that epilepsy is not considered the diagnosis unless there is an associated impairment or loss of consciousness. Jacksonian convulsions expected.

In uremia attacks do occur, but these convulsions are due to definite organic alterations in the cerebral cortex. Epilepsy also occurs in chronic alcoholics. Similar organic changes are present in the cerebrum, the result of alcoholism. It might be that alcoholic intoxication precipitates convulsions in an individual who is primarily an epileptic.

In reference to the reflex causes of epilepsy, it has been my privilege to observe convulsions in a woman of forty-five where ovarian pathology was definitely found. After treatment began for this disorder the patient completely recovered. There was no history of previous convulsions in the patient or members of her family.

In infectious diseases convulsions do occur, and especially in scarlet fever and pertussis, but in these conditions cerebral complications, tion.

Insofar as the endocrine disorders are namely, encephalitis is probably the explana-
concerned convulsions commonly appear in pathology of the pituitary and pancreas glands.

SUMMARY: It is obvious from what has been stated, that epileptic attacks do occur from extra-cerebral causes. It is probable that individuals in whom there is a tendency toward convulsions, belong to the spasmophilic group. Convulsions which occur in infectious diseases undoubtedly are the results of organic changes in the cerebral tissues.

CONCLUSION: When convulsions result from toxic, reflex, or other causes, it is my belief that the patient has either an epileptic diathesis or is an essential epileptic.

CASE REPORT

Mr. F. R., age 24, visited my office because he was having, as he stated "fits." He also remarked that the doctors who had previously seen him stated that he was an epileptic. He was given medicine to take regularly, advised to keep his bowels open and a diet containing great amounts of fats. He was warned to be cautious of driving an automobile, or of placing himself in any position where he might be seriously injured. It was further related by the patient that he had had a blood test and an urinalysis. With this inadequate laboratory study and a few clinical visits he was diagnosed and advised regarding his epilepsy. He gave up his position on the wharfs of the city docks, became apprehensive and worried constantly about his condition, having a vague understanding of the term epilepsy. At the time of his visit to me he was dejected, and depressed regarding his hopeless future.

Family History: There had been no convulsions or neuropathic conditions in his family.

Birth History: He was the second child of a family of four, his birth being normal in all respects. He walked, talked and teethed at the usual period, and his school work was satisfactory.

Personal History: There is no history of previous illnesses, injuries or operations.

Present Illness: While getting out of bed on the morning of July 2nd, 1934, he was seized with a generalized convulsion, immediately becoming unconscious. There had been no warning or previous evidence of impending illness at any time. He soon recovered from this attack and in a few hours felt normal. These "spells," as he called them, returned approximately every three weeks, without apparent cause.

Neurologically the patient was essentially negative. He was admitted to a hospital for observation and study. During the period in which he remained in the institution, there were no convulsions or any other unusual phenomenon. Pulse, blood pressure and temperature were normal. The laboratory reports were essentially normal, including spinal fluid findings, with the exception of a blood sugar report 35 mg. per 100 c.c. of blood. The blood sugar estimation on three different examinations, two days apart, was reported between 35 to 40 mg. per 100 c.c. The diagnosis of hyper-insulism, resulting hypo-glycemia with convulsive seizures was concluded. After making a few visits to my office, following his hospital confinement, he failed to return for observation and treatment. At a later date he was admitted to The Charity Hospital in a state of status epilepticus. His blood sugar readings at this time 30 mg. of sugar for 100 c.c. of blood, with death resulting. An autopsy revealed an adenoma of the tail of the pancreas.

Obviously, this was a case of symptomatic convulsions due to an adenoma of the tail of the pancreas with hyper-insulism.

Angina Pectoris

F. L. HUSBANDS, M.D.
Blytheville, Ark.

The appellation, angina pectoris, as we all knew it, brings to our minds the familiar picture of a patient in real distress, and in need of rapid and certain diagnosis in order to insure the proper therapy. This condition, as has been explained by Dr. Harlow Brooks, of Bellevue Hospital, is not a disease at all in the true sense of the word, but rather it is a clinical syndrome characterized by paroxysmal attacks of pectoral or precordial pain, syncope, and a sensation of intense anxiety.

We must realize that the incidence of angina pectoris is increasing, which has been unquestionably demonstrated by statistics which take into consideration the fact of more accurate diagnosis. It has been shown that it is much more prevalent in urban than in rural districts which makes us feel that physical labor is less conducive to its development than is the strain of business and professional life. Furthermore, it has been observed that it occurs most frequently in the intellectual classes and, conversely, appears least often in the laboring classes. Race likewise plays a determining role, for those people who naturally are of the hypersensitive type, are far more prone to present themselves with the condition. It is interesting to note that Paullin has pointed out the rarity of the syndrome among negroes, and this statement has been confirmed by the reports of Thayer, Longcope and others. Furthermore, it is interesting to ponder over the fact that we find its incidence to be higher in men than in women in the proportion of four to one which we may take as ample evidence that it is man who bears the greater burden in this life. It is a condition of adult life and is seldom seen under the age of forty-five.

As to the etiology of angina pectoris the best we can do at the present time is theorize. No one theory has as yet been advanced which explains every phase of the condition. Mackenzie feels that it is due to exhaustion of the heart muscle, and this exhaustion may be due to constriction of the afferent arterioles cutting down the blood supply to the myocardium. He feels that the pain is due to increased excitation of the nervous system caused by the diseased heart. However, such a theory cannot be warranted when electrocardiographic records made during the attack show no evidence whatsoever of a diseased heart. Verdon has attributed the pain to necrosis of segments of the spinal cord, while Bamberger and Von Neusser assert that it is a reflex response of the vagus to an unusual stimulus. Such striking diversity of opinions is sufficient proof of our inadequate knowledge of the subject. Let it suffice to say here that we will be wise to look upon the complex as being brought on by a definite cardiac pathological condition, associated perhaps with a hypersensitive sympathetic or spinal nervous arc, which is responsible for the symptoms.

Many pathologists have stressed the appearance of angina pectoris without the presence of any demonstrable gross anatomical changes; however, such instances are rare, especially in modern literature. Quite commonly, gross anatomical studies have demonstrated lesions in the heart or aorta capable of producing death, but with the absence of the striking symptomatic picture of angina. Thus, we are forced to conclude that there is no parallelism between the gravity of the lesion and the severity of the symptoms. The most frequent lesion noted in association with the complex is disease of the coronary arteries. These vessels may show acute obstructive lesions as from thrombosis, embolism, diffuse or localized plaques of calcium deposits, arteritis or arteriosclerosis. Narrowing of their orifices in the aorta is exceedingly frequent, especially in those cases due to syphilis. Myocarditis of rheumatic fever, myocardial degeneration, and most frequent of all, myocardial fibrosis, are frequent findings. Pericarditis, especially around the base of the heart, is occasionally found and is usually associated with more or less muscle invasion.

The symptoms of angina pectoris are very characteristic. The onset of an attack is usually quite abrupt, though occasionally the patient has an aura in the form of a vague sensation of oppression. Usually after some unusual effort, the patient is seized by a sharp pain in the cardiac region, which is accompanied in most cases by a sense of constriction. During the attack, the pain, which is nearly always constant, is in the precordial region primarily and from there it radiates extensively, most often down the left arm and forearm to the finger tips, but at times to the right upper extremity, the back of the neck, and down to the thigh. More rarely, it is reflected to the abdomen, to the epigastrium, or to the region of the gall-bladder or appendix. The attack may be momentary, or may persist with remission for an hour or more. However, it is the usual experience for the attack to end promptly with the cessation of effort by the patient. Likewise, it is a common experience to see the patient become absolutely immobile with the onset of the attack, and these two latter signs are valuable aids in differentiating simple angina pectoris from cholecystitis, coronary thrombosis, and other difficulties in the region of the epigastrium. The patient's facies is typical, being that of anxiety over closely impending death.

The physical signs are of no particular aid. Inspection usually reveals an ashen face broken out with sweat. As a rule the pulse is slow, soft and manifests no irregularities not present during normal periods. The blood pressure may be somewhat higher than normal. The heart sounds are usually distant and weak. Dyspnea is notably absent or slight, but the respiration is slow and measured. At the conclusion of the paroxysm the patient assumes the appearance of relief. Large quantities of clear urine may be passed, and profound sleep is likely to follow. The signs of exhaustion are proportionate to the duration and severity of the attack.

Diagnosis is usually not difficult. It is of the utmost importance to take a careful history with special reference to the character and distribution of the pain. At this point it will be wise for us to consider the more common conditions which must be differentiated from angina pectoris.

Cholecystitis and Cholelithiasis cause a boring pain in the epigastrium and right upper quadrant which radiates around the ribs to the lower angle of the scapula. The history of dyspepsia, inability to digest fats and foods, and jaundice, if present, likewise are differentiating characteristics.

Peptic Ulcer causes a boring type of pain in the epigastrium, but the chronicity of the pain, history of dyspepsia, relief from pain by food and alkali, gastric analysis and x-ray with barium meal and tarry stools if present establish the diagnosis.

Splenic Infarct is rare, and follows such conditions that cause the breaking off of emboli into the blood stream. The presence of ecchymoses into the skin and a generalized illness may be looked for.

Acute hemorrhagic pancreatitis will produce the great degree of shock which naturally would be expected to accompany the release of lipase into the peritoneal cavity and subsequent digestion of fat. This condition nearly always strikes suddenly and about an hour after eating a heavy meal.

Perforated viscus may be differentiated by the history, shock, abdominal rigidity, and blood count.

Pleural infarct nearly always occurs at the periphery and in the lower lobes of the lungs, and there will usually be the history of a thrombophlebitis preceding, or of an operation with fat emboli, or of hip injections introducing particulate matter or air into the blood stream.

Pleurisy can be differentiated by the history of some preceding lung condition and the pain upon respiration. Also it may be possible to detect a friction rub.

Pericarditis can be differentiated by the history of some other condition such as rheumatic fever, tuberculosis, etc., and by the friction rub, and changes in the heart sounds, area of dullness, and pulsus alternans.

Appendicitis frequently causes its beginning symptoms with epigastric distress, but careful examination and localized tenderness in the right lower quadrant make it easy to differentiate.

Renal colic may be differentiated by the pain and tenderness in the lumbar region radiating down the course of the ureter.

The prognosis is always serious. Some patients die during the initial attack, while others live for years, the difference depending in part on their manner of life, but primarily, of course, on the nature of the causative factors. Coronary thrombosis is probably the most frequent type of lesion.

The treatment of angina pectoris is primarily designed to relieve the immediate attack and, if possible, to avoid future attacks.

The drugs which are of value are amyl nitrite which comes in pearls or ampules to be broken open and inhaled; nitroglycerin tablets, grain 1/100 may be placed under the tongue and dissolved. Chloroform, though very dangerous, has given relief in some cases. Morphine is the great reliable in the severer cases.

The patient is made to rest completely during and just after the attack and advised against excessive exercise in the future.

For the sake of completeness we may say that injection of the sympathetic trunk and sympathectomy have been tried with some good results, but these methods are still in the experimental stage.

In conclusion we may reiterate that angina pectoris is a definite clinical picture appearing most often in adult men above forty-five and in the more intellectual classes, that its prognosis is always serious, and that its treatment is palliative. The main point I wish to leave with you is that it is better to call a case of cholelithiasis angina pectoris and use amyl nitrite, than to call angina pectoris an acute surgical condition and operate. Indeed the older men have frequently called this condition acute indigestion and acute dilatation of the heart.

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor & Manager
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Postgraduate Medical Assembly

Mid-South Post Graduate Medical Assembly
Editors:
E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dewell Gann, Jr., M.D.

Mississippi State Medical Association
W. L. Little ,M.D. .... President
Joe E. Green, M.D. .... President-Elect
T. M. Dye .... Secretary
Editors:
Leon S. Lippincott, M.D. D. W. Jones, M.D.
G. S. Bryan, M.D.

Councilors
J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J. Gould Gardner , M.D.
Thomas J. Brown, M. D. W. H. Frizell, M.D.
D. J. Williams, M.D.

Published monthly at Booneville, Mississippi

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act of March 3, 1870.

We have enrolled as active members in our Mississippi State Hospital Association fifty-nine institutions, if we mistake not. This is a fine record. With only eighty-two counties in the state you can see that this gives us a fine distribution. No one now in this state need to want for hospital service provided he has the funds to secure a room. Our charity funds are distributed on a per capita basis. This gives our indigent sick a good break. This system is a big step forward for the patient and for the doctor. Mississippi is taking the lead in service to the indigent sick. And by means of this fine hospital set-up post graduate medical courses are being brought right out to the busy practitioner, medical education to the country doctor as he practices. The hospital and the medical associations, the State Board of Health, Tulane and the Commonwealth Foundation are putting on definite courses of instruction to cover the entire state. And by invitation medical staffs and societies are bringing post graduate work to the membership without any charge. In progressive medical service Mississippi is stepping out in the front for the United States. But we have not quite completed our system. We should have a nice well equipped central hospital at Jackson as a kind of clearing house for the system. A hundred beds would be large enough perhaps, may be one twenty-five. This hospital should have radium and deep x-ray therapy and a competent pathologist. It should be equipped to take care of our complicated cripples. The state with the aid of Jackson and Hinds County should construct the building in our opinion. With this set-up we could offer a fine two-year internship which would be very fine for our state. Some of our hospitals are beginning to add a few rooms to treat the simpler cases of tuberculosis. It will be necessary to add some to our per capita distribution perhaps this next session of the legislature. We do not want to be extravagant and we do not want to encourage charity too much. When our system is completed and running in order the rest of the states will visit us and will call us blessed. Let us go forward a few more parasangs.

The meeting of the Northeast Mississippi 13-County Society at Tupelo on the 14th of December—the second Tuesday instead of the third—bids fair to be one of the best we have ever had. Dr. Irvin Abell, of Louisville, Ky., president-elect of the American Medical Association, is on program along with Dr Alton Ochsner, professor of surgery of Tulane, the old reliable. This pair it will pay you to go miles to hear. We are indeed very fortunate to have them. Dr. Abell has served as president of the Southern Medical Association. He is just what his name implies. He is a very popular man, a student sincere and earnest, a man with a heart tender and considerate. He is a man of vision and a man of courage. Dr. Ochsner is one of the ablest surgeons in the entire nation. But few men we have ever heard covers a subject so fully and yet in such a simple and concise manner. He is profound enough to speak simply. There are other good men on the program and many fine features. We will have many distinguished visitors. Tupelo is royal in its entertainment. For royal entertainment in the past we are deeply obligated to the T. K. E. Drug Company for its cordiality and generosity. The Tupelo Hotel has been most gracious to us. And back of all we are most obligated to the Medical Spirit of the City of Tupelo.

Hospital insurance under the direction of organized medicine may serve a very good purpose. Hospital insurance for surgical cases is needed as a rule worse than for medical. At this time in the rural territories hospital insurance can hardly keep from making it harder on the general practitioner. Many of them cannot follow their patients to the hospital for their daily visit. If very many of the pay patients go to the hospital and call in the doctor on the hospital staff, the one near enough to look after him, the practitioner in the country will be starved to follow. We need more decentralization of the medical profession instead of centralization. The country practitioner may not know just how very many germs look under the microscope, but he knows his patient better than the specialist. So we have some compensation on the side of the practitioner. The medical profession must not only fight the germ that is attacking the human body nowadays, he must look after the hygiene of the soul, mind and body to a great degree. The new era should give the practitioner a broader field instead of exterminating him. We want to see the practitioner and the specialist join hands in cooperation, we want to see an affiliation between the small and the large hospital, a swapping of courses. But in our human economy in the solving of our medical problems, the general practitioner and general surgeon in the rural community and small towns have a great function to perform. They are the missionaries on the commercial firing lines of medicine. Let us be cautious lest we bring further hardships to the very noblest of God's professional creation.

The Southern Medical Association met in New Orleans on Nov. 30-Dec.3, 1937. It was a great meeting, the very best in the life of the association, we believe. New Orleans is a great medical center, has a fine medical atmosphere, and all the essentials to make a visit pleasant and profitable. Our welcome was most cordial and the generosity of deeds even more lavish. It is a city of antiquity and romance, progress and learning, valor, patriotism, and sportsmanship. It is very cosmopolitan, yet friendly and generous; modern, yet quaint and beautiful. It possesses treasures gathered from the four corners of the earth, and yet it retains all of its charm of home life. It is the culinary capital of the world as well as the Mecca for the artist and the lover of music. It is outstanding for its medical schools and for its medical journal as well as its medical history of more than a hundred years. Its medical spirit with its rich heritage may be now epitomized in one man of seventy-seven years, but yet active. He is a national character, dean of the medical world, the embodiment of medical integrity. Truth and sincerity make his versatile tongue ever eloquent. Mental electrons from his unselfish brain and noble heart have charged the city's atmosphere. Many were delighted to hear his voice again. Love, honor, praise, and admiration was on every tongue for Dr. Rudolph Matas. We shall wait with most pleasant anticipations for our return to the friendly and generous city.

On the 19th of November the University of Tennessee put on a post graduate course at Houston for one day and night. It was a fine course of lectures. This was a forward move by the Houston Hospital Staff, but it is not too much to expect of them; they forge to the front. Post graduate education for the busy practitioner is rapidly becoming the order of the day. No other states are so fitted for this as is Mississippi because they do not have the number of small hospitals according to population and the distribution of charity funds for the indigent as we do. Medical science never closes the day as it began. The general man in the country and small town cannot leave his work to be gone a month or six weeks, because in many instances there is no one to leave it with. We appreciate the work of the University of Tennessee and of Tulane and Vanderbilt in this new plan. Houston has blazed the way in a little different role for the country surgeon and the busy practitioner. Congratulations to the Houston Staff.

Dr. Harvey F. Garrison, of Jackson, organized the presidents of the Southern states last year at Baltimore. This was a very constructive move. This organization is ideal for a cross section of the medical profession, both the specialist and the general practitioner, the doctor of the city and the new practitioner of the rural community. This meeting at New Orleans was one of the most interesting of all. It gave a fine opportunity for a free discussion of medical problems. The meeting was well attended. The address of Dr. Garrison was fine. You will read it. We think Dr. Garrison has started something constructive in this meeting. It will prove to be the greatest force we have in solving our medical problems. Before we get any where with medical problems the entire profession must take part and must be informed. We venture to offer a little further suggestion, and it is that a national meeting of the president, presidents-elect, secretaries, and editors of medical journals be held at the next meeting of the A. M. A. In national medical problems the A. M. A. is our strongest arm, but a meeting of these men t form a free and un-official discussion of their medical problems might be helpful to all concerned.

For the general surgeon in the small town we do not know of any works on surgery that surpasses Warbasse, Smyth's "Surgical Treatment." It is plenty good for the specialist also. It gives medical as well as surgical treatment. Its technique is concise, easily followed, and gives all the essential points. It outlines treatment for preoperative and post operative treatment and for many surgical cases that do not have to be operated upon. It gives the essentials for meeting every situation in the human body as nearly as a book can give it in three volumes. The country surgeon will surely be delighted with this set of three big volumes with index. It is published by W. B. Saunders Company and distributed by the J. A. Majors Company at New Orleans and Dallas. The price is thirty-five dollars.

The exhibitors of the Mid-South Post Graduate Medical Assembly at Memphis have been a big factor in building this great meeting to what it is today. They help with their finances and they help in telling the people about its fine features and remind them to go. The Mississippi State Medical Association could receive the same benefits proportionately. The biological houses and the supply companies as a rule work hand in hand with scientific exhibitors thus becoming instructive and helpful to a meeting. Our state association has been very weak along this line in the past. We should have one man to have charge of the exhibits, pay him a small per cent to handle it and then let the rest go to financing the association. Think about this. Let us go forward and live up to our opportunities.

There was a time when the medical profession could very well take care of the charity without any charge. This was when more people were able to pay nice fees when we did not have so many indigent, when doctors did not have to go to school so long at such a high cost, and when it did not cost so much to operate an office. The indications are now that the doctors are going to be forced to be paid cost of operation for charity the same as hospitals have cost for keeping the patient. All the people are due to pay for charity, not just the doctors. This is not state medicine; it is reason and sense, as long as the patient is left free to chose his physician, his surgeon and his hospital

Look over the advanced program of the Mid-South and make your plans to attend. We expect to publish about four or five thousand copies boosting this meeting. It will be in the main a Memphis issue. The Memphis doctors have done fine service in the establishment of this great post-graduate assembly. Memphis is growing as a medical center and as a medical teaching center. It has the greatest outlook of any inland city on the banks of the great Father of Waters.

Dr. W. A. Applegate, of Washington, D. C., who served thirty-two years as Chief Surgeon of the Southern Railway System, has recently retired. He is a native of Ohio, but spent many years in general practice in Chattanooga before he became chief surgeon. He is just past his four score years, but he is active in body and his mental interests are as enthusiastic as a school boy's. Hundreds of local surgeons throughout the South will deeply regret his going. They love him like a father, and he they like sons. He may indeed and in truth be called the beloved Dr. Applegate. The surgeons of his system were always ready to do his bidding. They know full well that he would not ask more than he was ready to give. At the meetings at any and all times he looked after their every need. He is a real leader of men. He is a man of balance and poise and fine common sense. He possesses medical integrity and mental honesty. But the biggest stock he has in trade is the kindness of his heart. He attended the Southern Medical Association in New Orleans and gave his boys a cordial handshake. Hundreds of the boys who have served so long and so joyfully with Dr. Applegate will always look upon him as chief surgeon. They appreciate his friendly deed of love in visiting their meetings. May his days be many more and very happy is the wish of this journal.

Drs. S. G. Harnden, Dalton, Ark., Thomas N. Black, Medical Arts Building, Hot Springs, Ark., Julius E. Isaacson, Jr., New Orleans are among the new subscribers whom we deeply appreciate.

The essence of state medicine is to deny a man freedom of choice of his physician.

The last reliable report places the number of deaths resulting from the administration of "elixir of sulfanilimide" at seventy-three. There are, probably, others to follow. In addition to these, I have no doubt, there are some that will never be reported. Besides this there is no way to know just how many people have been exposed to danger of death and some no doubt who have been seriously and permanently damaged by the use of this poisonous concoction. What a tragedy and what a travesty on scientific medicine. We, who are the guardians of the health and the lives of the public, should hang our heads in shame at the low standard to which medicine has fallen. We boast of the progress that has been made while such a condition exists that makes it possible for such a tragedy to occur. Have human greed for money on the part of so-called drug manufacturers and the blind and foolish way in which we follow the lead of these manufacturers wrought this? Have we not drugs enough, yea more than enough, of the legitimate type? The patience of this writer is tried to the limit by the representatives of these distributors of new and untried remedies. These young men come in with a memorized spiel proclaiming the wonderful healing power of their concoctions and we, too often, permit ourselves to be hypnotized into believing their stories. If we would tell these nice young fellows that we have spent time and money in medical schools and that we have books and journals to aid us in keeping abreast of medical progress and that we have wonderful opportunities of hearing men at our meetings who should be capable and dependable teachers, I think it might be better for us and vastly so for our clientele. When we give medicine simply because some vendor tells us it is good for this or that we certainly lower the standard of medicine and have no right to complain if our clientele takes the hint and drifts into the hands of some quack or depends upon self medication under the guidance of some friendly druggist. Again, I say that we should not expect too much from the administration of drugs any way. It is too much to expect any drug to cure disease; for no drug can be relied upon as a specific. The most we, as doctors, can do (and we should promise no more than we can do) is to assist nature in its efforts to overcome disease. By reason of the biochemical processes inherent to all animals, all disease tends towards recovery. If Logan Clendening should never have made another statement, he would have been entitled to front rank among teachers when he placed *Rest*—mental and physical—above *all* therapeutic measures. It was a daring statement when he said:- "With rest you can treat heart disease without drugs, tuberculosis without climate and appendicitis without surgery; without rest you can do nothing." I am sure he did not mean that surgery is not indicated in appendicitis and is often a life saving measure. But I am equally sure that he did mean that many cases do equally well without surgery. Again I am quite sure that many, very many, appendectomies are done on innocent and inoffensive appendices. But let us return to the subject with which we introduced this comment. Namely, elixir sulfanilimide. I am persuaded that there is no such elixir. A misnomer and a misleading claim. I am convinced that the death dealing ingredient in this concoction is not sulfanilimide but the solvent used in its manufacture. But I am, also, convinced that entirely too much is claimed and expected of sulfanilimide in its purest form. I have used it but have been sorely disappointed in it. I shall wait longer before endorsing or condemning it. I shall let others who are more capable and are better equipped for experimentation, evaluate it. However, I am quite sure that when the pendulum comes to rest, some claims that have been made for it will be repudiated or withdrawn.

G. S. B.

PROGRAM SPEAKER

Dr. Alton Ochsner, Professor of Surgery of Tulane, who will appear on the program of our Northeast Mississippi 13 County Medical Society at Tupelo on Tuesday December the 14th. In the forenoon he will hold a Medical Institute at the North Mississippi Community Hospital at Tupelo. Northeast Mississippi is very fortunate in securing him.

UNDERWOOD RECEIVES APPOINTMENT

Dr. Felix J. Underwood has been appointed a member of the Rockefeller Foundation Board. This board is composed of six members. It decides the policy of the Foundation throughout the world. Dr. Underwood will serve on the board for a period of three years, attending the five annual meetings. Surgeon General Parran is a member of this board. This is a great distinction to come to Dr. Underwood and to the State of Mississippi. It came to a man who is amply able to serve with distinction and is deserving in every way. We offer our most cordial congratulations to him.

LETTERS TO THE EDITOR

Dear Doctor:

In looking at your excellent cover design of your November issue, it shows your journal has an intense interest in the country physician's problems. I thought of making a suggestion which I have made before in medical literature.

I think the practitioners everywhere, especially in the small towns, should develop group medical practice. There should be a hospital in every town, and each doctor should be on the staff. If possible, they could each have a specialty or develop a specialty. Even without that they could all be on the staff of the hospital and take up the work there when necessary and work together. I think it would solve a lot of problems and keep their patients in good hands.

This plan could be worked up by the physicians in each community. They can get help from the physicians in larger towns where they have hospitals there and give them advice on the organization of such a group with a hospital. The local people should aid in building the hospital. This has been done in towns, and ought to be done in many more.

Very truly yours,
John C. Rommel,
4601 L. Broad Street, Philadelphia

We thank you very graciously for the above letter, Dr. Rommel. We have about fifty of the small hospitals you speak of in your county and a percapita distribution on a cost basis for the indigent sick for the entire state. Your suggestions are fine. We thank you for them. We appreciate your interest in *The Mississippi Doctor.* We appreciate other letters also and the many words of encouragement on the November issue.

My dear Doctor:

I want to congratulate you on the cover page on the November issue of *The Mississippi Doctor.* It brings into vivid review by graphic illustrations, the position of the forgotten man of medicine, the general practitioner. It shows him in deep meditation over the future of his position. It should concern him, it should concern the public who need his services.

The public demands specialism. TThe general practitioner is a specialist of the highest order, but unlike other specialists, he is usually too modest to cry his wares, and so in this day of topsy turvy conditions he is almost relegated to the limbo of forgotten men, and this to the everlasting hurt of organized medicine and the public weal.

The artist who conceived this frontispiece must have had a very fertile brain, and a vivid imagination of factual relationships. I imagine it will give us pause for some consideration of the verity of things medical, and the associational qualifications relevant to the conditions.

Sincerely yours,
J. A. Rayburn,
Pontotoc, Miss.

My dear Doctor Anderson:

I am delighted at the appearance and contents of *The Mississippi Doctor,* which I have just received. I have called the attention of many members of the profession to the front cover of the journal. I think this is one of the best cartoons that I have ever had the privilege of seeing, and I am going to offer this suggestion to you. Please take about one hundred copies of this edition of *The Mississippi Doctor* to New Orleans, to the Conference for the Presidents, Presidents-Elect and Secretaries, and give one to every one who is attending this Dinner Conference. The picture on the front of this edition is right along the line on which I am to talk as chairman, and I am very anxious that they see our journal, particularly the front cover.

You are to be congratulated on this edition of the journal, for it is one of the best.

Looking forward with anticipated pleasure of seeing you in New Orleans, and with every good wish, I am,

Sincerely your friend,
Harvey F. Garrison, Chairman,
Conference for the Presidents,
Presidents-Elect and Secretaries
Jackson, Miss.

MID-SOUTH FEBRUARY 15, 16, 17, and 18

The popular and efficient secretary of the Mid-South Postgraduate Medical Association, Dr. A. F. Cooper, writes us that the program for the annual meeting in February is just about completed. It bids fair to be one of the best in the long history of the Association. Read his letter, look over the list and make your plans to attend.

Dr. W. H. Anderson,
Booneville, Miss.

Dear Doctor Anderson:

We have now completed the program for the Mid-South. I would have sent you these additional names last week had I not been on my vacation.

Dr. Alton Ochsner, New Orleans, will talk on "Peripheral Vascular Disease."

Dr. J. R. Hume, New Orleans, "The Acute Ear, Its Danger Signs and Complications."

Dr. J. H. Means, of Boston, will discuss "The Treatment of Some of the Commoner Medical Emergencies."

We are expecting to have Mr. Strickland Gillilan deliver a humorous address on the evening of February 17th. He lectured twice here last month at the Goodwyn Institute and everyone speaks highly of him. In fact, Dr. McGehee said he thought he was as good as Fishbein, though a speaker of a different type. If he is that good you know he is really good.

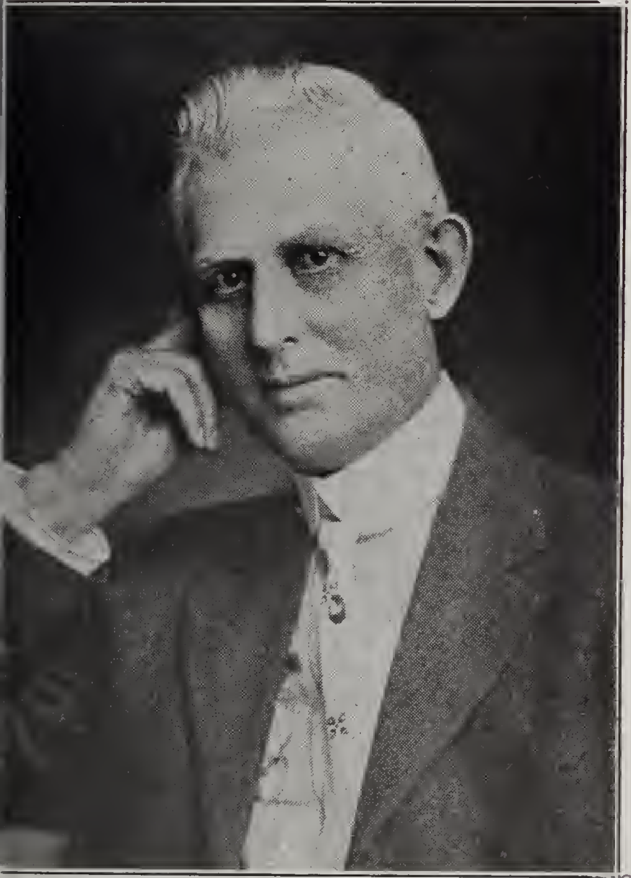
With regards and best wishes, I am,

Yours very truly,
A. F. Cooper, M.D., Secretary

Dr. E. R. Long, Director, Phipps Inst. Philadelphia.
Dr. Cyrus C. Sturgis, Prof. Int. Med. Univ. Mich. Ann Arbor, Mich.
Dr. Mont R. Reid, Prof. Surgery, Univ. Cincinnati, Cincinnati, Ohio.
Dr. Russell L. Haden, Cleveland, Ohio.
Dr. Harry C. Solomon, Ass't. Prof. Psych., Harvard Univ., Med. Sch., Boston.
Dr. F. A. Willius, Associate Professor Med., Univ. Minn., Grad. Sch. Med. Rochester, Minn.
Dr. L. A. Buie, Associate Professor Proct., Univ. Minn. Grad. Sch. Med. Rochester, Minn.
Dr. Thomas G. Orr, Prof. Surg., Univ. Kan. Sch. Med. Kansas City, Mo.
Dr. Ramon Castroviejo, New York City.
Dr. C. H. Crego, Jr., Chief Surg. Shriners' Hospitals for Crippled Children, St. Louis, Missouri.
Dr. S. D. Kramer, Ass't. Prof. Ped. Long Island Coll. Med. Brooklyn, N. Y.
Dr. Hugh Cabot, Prof. Surg. Univ. Minn. Grad. Sch. Med., Rochester, Minn.

Dr. J. E. Moore, Baltimore, Md.
Dr. Harvey B. Stone, Assoc. Prof. Surg., Johns Hopkins Univ. Sch. Med. Baltimore, Md.
Dr. James H. Hutton, Chicago, Ill.
Dr. A. Graeme Mitchell, Prof. Ped. Univ. Cincinnati, Cincinnati, Ohio.
Dr. Gabriel Tucker, Prof. Bronch. & Laryngeal Surg., Univ. Penn. Philadelphia, Pa.
Dr. E. L. King, Prof. Obst., Tulane Univ. Sch. Med. New Orleans, La.
Dr. A. F. Hartmann, Prof. Ped. Washington Univ., Sch. Med., St. Louis, Mo.
Dr. E. M. Seydell, Wichita, Kan.
Dr. George W. Kosmak, Editor, Amer. Jour. Obst. & Gyn., New York, N. Y.

DR. SAMUEL R. DEANES



Dr. Samuel R. Deanes, pioneer surgeon of Clay County and a practicing physician here for fifty-one years, died this morning at the age of 75.

Funeral services were held at the home at 3 o'clock in the afternoon. The Rev. P. C. Howle, pastor of the First Christian Church, was in charge, assisted by Rev. T. R. Husk of the Presbyterian Church.

Dr. Deanes was the first surgeon to perform an operation in Clay County. He was city health officer of West Point at the time of his death, and for two years had been an outstanding figure in medical circles of Northeast Mississippi having been president of the Northeast Mississippi Thirteen County Medical Society in 1935.

He was born in Clay County in 1862 and spent his entire life here, except for the time he was attending the medical school of the University of Louisville, from which he was graduated in 1885. He began his practice here immediately after graduation.

He is survived by his wife, Mrs. S. R. Deans; three daughters, Mrs. Oliver Johnson of Dayton, Ohio, Mrs. Joe Higginbotham of West Point and Elizabeth Deanes of Birmingham; a son, Rex Deanes, of New York; a brother, Frank Deanes of West Point; five sisters, Miss Lula Deanes, Miss Lottie Deanes and Mrs. M. D. Hodges, all of West Point, and Mrs. Joseph G. Smith of Dallas and Mrs. Dora Kennedy of Mobile.

Dr. Deanes will be greatly missed in our society. He was one of the noblest of the noble. He was a man of unusually strong intellect and a student who never waned in his interest for information. He loved people and was quick to enter into their pleasures and joys and sorrows and disappointments. Doctor Deanes had the happy faculty of combining humor with his wisdom to the benefit and the delight of his friends. He was a true and a sincere friend who was always dependable. We shall all miss the inspiration of his love. We extend our sincere sympathy to the family and relatives who miss his counsel, love, and devotion.

"HOSPITAL INSURANCE"

Vicksburg, Miss.
October 18, 1937

Dr. C. E. Boyd,
Amory, Mississippi

Dear Dr. Boyd:

I wish to congratulate you on your very able article in the current issue of *The Mississippi Doctor* enttled "Hospital Insurance." No one can disagree with the ideals expressed. The urgent need for the well-grounded, practical, general medical man is becoming apparent to many responsible and thinking citizens of all communities, as well as to the medical profession. In order to have him, he must have encouragement and support, so that he will be able to live and maintain efficiency and morale.

I heartily endorse what you say in opposing the control of hospitals and hospitalization by selfish and commercial interests. This is just exactly what came up when the hospitals of the state were confronted with the establishment and operation of commercial hospitalization insurance companies in Mississippi, organized for the purpose of making money out of hospitals and patients and doctors. In order to combat this, the Hospital Association decided to organize a non-profit, partial payment, hospitalization plan, under the joint control of the State Medical Association and the State Hospital Association, the executive board to be made up with half the members from the State Medical Association and half from the State Hospital Association. The purpose of this was to keep the plan entirely in the control of the medical profession and prevent domination of hospitals and doctors by selfish commercial interests. The Mississippi Hospital Association has organized and had chartered the Hospital Service Corporation of Mississippi. A committee from the State Medical Association has not, so far, seen fit to recommend the nomination of board members by the State Medical Association. We hope they will later do so. However, all acting board members are members of the State Medical Association, and I think I can safely say, loyal members, and can be depended on to fight for the protection of the medical profession.

The Hospital Service Corporation of Mississippi is under the control of the medical profession and, if we can have the support of the members of the profession throughout the state, the Service Corporation will serve as a guarantee that hospitals, doctors, and nurses, will not fall under the control of selfish interests, and that these professions will remain independent as they should be. Hospitalization service is to be offered to employed groups only. There will be no house to house peddling of policies to individuals in the country. The policy does not provide for the professional service of any doctor. The patient is to select and pay his own physician. The object is to lighten the burden of hospitalization expense on families who exist on low or moderate salaries. When necessity of hospitalization strikes such families, they practically never have saved up any reserve for such emergency. However, they can easily pay 3c a day to the Corporation and the Service Corporation will maintain that reserve for them, thus doing away with the necessity of borrowing and going into debt on account of hospitalization on the one hand or, on the other hand, of becoming dependent on the state for charity hospitalization. It seems to me that this plan should work to the interests of the patient, of the hospital, and of the doctors. I would appreciate your letting me know whether you think so or not.

With kind regards,

Sincerely yours,

A. STREET, M.D.

* * *

Amory, Mississippi
October 26, 1937

Dr. A. Street,
Vicksburg, Mississippi

Dear Doctor Street:

I am very glad to have your letter of October the 18th, and appreciate the kind remarks in regard to my paper. I will apologize in the beginning of this letter for the amount of space that will be required to answer the queries set forth in your letter, as I see the matter. No one has more respect for the hospitals of Mississippi than I. I am always willing to risk myself or my family when occasion arises, to our own hospitals and home surgeons. I do not question the loyalty of any member of the hospital group, further than I think you must agree that their interest in hospitals comes first.

The hospital group comprises probably 10% of the State Association. The 10% of the profession are offering to the other 90% of the profession a plan of insurance, saying, "We 10% have decided this to be a good thing, now you have it whether you like it or not. Take it or leave it." What are you going to do about it? To my way of thinking, if any plan of insurance could be made workable, it should be offered by the doctors who are doing the general practice and furnishing most of tne patients. Not a hospital in the state has to accept a patient carrying the commercial insurance mentioned in your letter, and I must say that I do not think it fair to the profession when they do.

You state that insurance is to be offered to employed groups only. There could be a semblance of reason to the plan if it went no further than employed groups, but, it will not stop there. You and I know of people far above the employed group class and well able to pay any kind of fee who are carrying and will carry this insurance if offered. There are thousands of people in Mississippi who can not carry any kind of insurance, not even burial insurance. This class will be overlooked entirely. As to the free choice of physicians, let me illustrate. Amory, Mississippi, has a small garment factory, employing girls from a country radius of probably fifteen miles. Numbers of these girls have been incapacitated at different times in the past few months, appendectomies, tonsils removed, injuries, etc., and in not a single instance has the family physician been called for one of these girls. Employed groups have little to say in the matter of physicians. There is always someone to suggest who shall be called, some one near or someone favored by those in charge. No, Doctor, a plan of this nature means that a few men in or near hospitals will treat in, shall I say, at least in a hurried way the patients that many are now treating in an efficient way.

One does not have to be a visionary or a crystal gazer to see the beginning rift that will be ever widening if plans of this nature are persisted in. Now Doctor, let's put the fear of the Lord into the men who are to be members of the next Legislature. Let's instruct every county society in the State to have repeated conferences with every legislative candidate as well as Governor and secure pledges before hand for adequate appropriations to care for the indigent then our hospitals can function in an efficient manner and unhampered.

We will be glad to have you visit our society at any time it will be convenient for you to do so.

With very best wishes,

C. E. BOYD, M.D.

DR. W. N. NANNEY

Dr. W. N. Nanney, prominent Itawamba County physician, and a resident of Fulton many years, died at the North Mississippi Community Hospital here early today, following an illness of several days. Dr. Nanney was 57 years of age.

Funeral services will be held at Fulton tomorrow morning at 11 o'clock.

Besides his wife, Dr. Nanney leaves several children and other relatives. Mayor J. P. Nanney, of Tupelo, is a distant relative.

The Northeast Mississippi 13-County Medical Society has lost a fine member in the going of Dr. Nanney. He was a faithful member. He was a good solid, safe and sound practitioner, true to every trust. As well as a faithful practitioner he was a helpful friend to his clientele. He was a delightful friend because within him was dependability. The people of Fulton have lost a fine family doctor and a splendid citizen and the society has lost one whom we shall greatly miss. We offer our fullest sympathy to the ones who will miss him most.

PROGRAM OF THE NORTHEAST MISSISSIPPI 13-COUNTY MEDICAL SOCIETY

Fourth quarterly meeting, Tuesday, December 14, 1937, Tupelo, Lee County, 1:00 p. m., First Methodist Church. Following the scientific program an entertainment will be given the doctors and their wives by Thomas, Kincannon, Elkin Drug Company in Hotel Tupelo dining room, 7:00 p. m.

Dr. L. L. McDougal is president and A. J. Stacy is secretary.

PROGRAM

House Called to Order.—By President, Dr. L. L. McDougal.

Invocation.—Dr. H. F. Brooks.

Reading and Adoption of Minutes of Last Meeting.

The Life of Louis Pasteur.—Dr. J. P. Wall Jackson, Miss. Speaker of the House of Delegates State Medical Association.

Head Injuries.—Dr. Alton Ochsner, Prof. of Surgery, Tulane University.

President-Elect American Medical Association.

The President's Address.—Dr. L. L. McDougal.

Gynecology.—Dr. Irwin Abell, Louisville, Ky.

Dr. J. R. Hill, of Corinth, will make a report of Special Committees on Hospital Insurance.

Business Meeting, Election of Officers.

SECOND ANNUAL MEETING NEW ORLEANS GRADUATE MEDICAL ASSEMBLY, MARCH 7-10, 1938.

Is this your life: Four years in medical school, one year internship, practice limited in a small town; marriage—children, social obligations, increasing practice, crowded days, decreasing time for home study, routinism—loss of interest?

Realization: Desire for new information, interchange of knowledge, medical contacts, new faces—famous men, reawakened interest, success in handling patients, latest therapeutic advances, new ideas.

If this represents any part of your life then visit the Second Annual New Orleans Graduate Medical Assembly.

LIST OF EXHIBITORS WHO HAVE ALREADY BOUGHT SPACE FOR THE FORTHCOMING CONVENTION OF THE MID-SOUTH POST GRADUATE MEDICAL ASSEMBLY—FEBRUARY 15-18, 1937.

E. L. Mercere Company, 191 Madison Avenue, Memphis Tennessee.

Bilhuber-Knoll Corporation, 154 Ogden Avenue, Jersey City, N. J.

General Electric X-Ray Corporation, Sterick Building, Memphis, Tennessee.

Richards Manufacturing Company, 756 Madison Avenue, Memphis, Tennessee.

Mead-Johnson Company, Evansville, Ind.

R. B. Davis Company, Hoboken, N. J.

Scientific Sugars Company, Indianapolis, Ind.

Schering Corporation, Bloomfield, N. J.

J. A. Majors Company, 1301 Tulane Avenue, New Orleans, La.

Merck & Company, Inc., Rahway, N.J.

Wm. S. Merrell Company, Cincinnati, Ohio.

Drug Products Company, Inc., 26-32 Skillman Avenue, Long Island City, N. Y.

Rare Chemicals, Inc., Nepera Park, N. Y.

The Foregger Company, Inc., 47 West 42nd Street, Chicago, Illinois.

Aznoe's National Physicians Exchange, 30 N. Michigan Avenue, Chicago, Illinois.

The Borden Company, 350 Madison Avenue, New York City, N. Y.

C. V. Mosby Company, St. Louis, Mo.

Jones Metabolism Equipment Company, 1870 Ogden Avenue, Chicago, Illinois.

Libby, McNeil. & Libby, Union Stock Yards, Chicago, Illinois.

Bard-Parker, Inc., Danbury, Conn.

A. S. Aloe Company, 1819 Olive Street, St. Louis, Missouri.

Gerber Products Company, Fremont, Michigan.

E. R. Squibb & Sons, 745 Fifth Avenue, New York City, N. Y.

Mellins Food Company, Boston, Mass.

Southern Surgical Supply Company, 893 Madison Avenue, Memphis, Tennessee.

DeVilbiss Company, Toledo, Ohio.

H. J. Heinz Company, Pittsburg, Pa.

Philip Morris & Company, Ltd., 119 Fifth Avenue, New York City, N. Y.

Massey Surgical Supply, Inc., Bennie-Dillon Bldg., Nashville, Tennessee.

Heidbrink Company, 2633 Fourth Avenue, South, Minneapolis, Minn.

Puritan Gas Corporation, 2012 Grand Avenue, Kansas City, Mo.

J. B. Lippincott Company, East Washington Square, Philadelphia, Pa.

Wholesale Surgical Splint Company, 2537 Broad Street, Memphis, Tennessee.

Lederle Laboratories, Inc., 30 Rockefeller Plaza, New York City, N. Y.

Abbott Laboratories, North Chicago, Illinois.

The Mennen Company, 345 Central Avenue, Newark, N. J.

Dick X-Ray Company, Medical Arts Building, Memphis, Tennessee.

Petrolagar Laboratories, Inc., 8134 McCormick Building, Chicago, Illinois.

Duke Laboratories, Inc., Long Island City, N. Y.

Arlington Chemical Company, Yonkers, N. Y.

H. G. Fischer, & Company, Inc., 2323 Wabansia Avenue, Chicago, Illinois.

John Wyeth & Brothers, Philadelphia, Pa.

Cameron Surgical Specialty Company, 866 W. Division Street, Chicago, Illinois.

The Doak Company, 2132 East 9th Street, Cleveland, Ohio.

Sandoz Chemical Works, Inc., 61-63 Van Dam Street, New York City, N. Y.

Pet Milk Sales Corporation, St. Louis, Missouri.

White Laboratories, 113 N. 13th Street, Newark, N. J.

AMERICAN PUBLIC HEALTH ASS'N.

The officers of the American Public Health Association announce that the 67th Annual Meeting will be held in Kansas City, Mo., Oct. 25-28, 1938.

Dr. Edwin Henry Schorer, Director of the Kansas City Health Department, has been appointed Chairman of the Local Committee. He will be assisted by a large group of city and state officials and community leaders.

A long list of affiliated organizations meet habitually with the American Public Health Association. They include:

The American Association of School Physicians.

The Association of Women in Public Health

The Conference of State Laboratory Directors.

The Conference of State Sanitary Engineers.

The American Association of State Registration Executive s

Delta Omega

The International Society of Medical Health Officers.

LOCATES IN JACKSON

Dr. J. Rufus Johnson, recently of the Veteran's Administration Facility, Daneville, Ill., and now taking special work in proctology in Chicago, will soon return to Jackson, Miss., to practice his specialty. He is a graduate of the University of Mississippi, and Tulane. He practiced in Jackson for two years and now after many years of experience and special work he will return to the fast growing city. He will receive a hearty welcome.

ANNOUNCES OPENING OF OFFICE

Dr. Dean H. Echols, formerly instructor in neurological surgery at the University of Michigan Medical School, announces the opening of an office at 1003 American Bank Bldg., New Orleans, October 1, 1937. Practice limited to neurological surgery.

MEDICAL GROUP MEETS

Dr. A. E. Robinson, of Leachville was elected president of the Mississippi County Medical Society in a meeting at the Blytheville Hospital last night. Dr. T. F. Hudson, of Luxora, is the retiring president.

Other officers named were Dr. Joe E. Beasley, of Blytheville, vice-president; Dr. E. D. Smith, of Blytheville, secretary and treasurer.

DR. AUGUSTUS M. HARRELSON

Dr. Augustus M. Harrelson, Stringer, Mississippi, was born August 16, 1865, at Paulding, Jasper County, Mississippi. He graduated from the Medical Department of the University of Tennessee in 1892. Dr. Harrelson practiced medicine in Rankin County for five years, Smith County ten years, Newton County ten years, Perry County five years, and the balance of the time in Jones and Jasper Counties. He has been located in Stringer for the past twelve years.

Dr. Harrelson is a member of the local medical society and is an honorary member of the Mississippi State Medical Association. He became a member of the State Medical Association in 1894.

Dr. Harrelson was married November 16, 1892 to Miss Elvira N. Tillson and is the father of five children.

LEAKE COUNTY

Our society is not functioning very much. Most of our membership likes to go to the Central in Jackson. They always have interesting and instructive programs.

We have had some losses in our ranks this year. Dr. James M. Barnett, of Okolona, passed to his reward in October, age 62. Dr. Barnett had spent many years of hard and sacrificial service to the people of his community. He will be missed by the people in the Okolona community. Another good opening for some one who wants to go to a rural practice. Dr. Joe Dodson is now in the hospital in Jackson with a paralytic stroke. His condition is very serious and uncertain. Dr. Joe. M. Chisolm has recently moved to Union, where he forms a partnership with Dr. Laird. Dr. Chisolm is a good doctor, well-trained and well grounded in the science. We regret to lose him. Dr. C. D. Barclay, formerly of State Line, has recently moved into our ranks. Dr. Barclay, we understand, enjoyed a nice practice before coming to Carthage. He no doubt will continue to do so.

Dr. B. R. Wilson, who enjoys very wide practice in this county plans to build a new clinic and hospital during the early part of the year. This will of course mean much to our town and county.

The writer is just back from the Southern Medical Meeting in New Orleans. New Orleans is a great city to visit with a good time in hand. Many celebrities were there and the atmosphere was charged with new and very deeply scientific subjects. We are all looking forward with hope in these parts.

H. H. Puryear,

BOOK REVIEWS

MENTAL THERAPY, Studies in Fifty Cases, by Louis S. London, M.D.

This book is published in two volumes. It represents the life work of an eminent American psychiatrist. Dr. London was formerly Assistant Surgeon, United States Public Health Service; Medical Officer, United States Veteran's Bureau; Assistant Physician, Central Islip State Hospital, Central Islip, New York, and Manhattan State Hospital, Ward's Island, New York. From his experiences in these positions he has had ample opportunity to test the working genius of the Freudian Psychology, in which he had been interested since 1914. His conclusions are recorded in the fifty case histories contained in this book. In writing these he had avoided the sterohypy and presented them so readably that each one seems like a brilliant psychological novel.

The book is divided into six parts. Part 1., presents metapsychology, taking up such topics as the evolution of psychotherapeutics, a survey of psychoanalysis, the meaning of the dream, psychosexual psychology of the child and the psychosexual pathology of the sexual instinct. Part II. is entitled Psychogenesis and Psychotherapy of the Neuroses, and relates case histories of the minor psychoses. In Part III. Dr. London presents analyses of sex perversions in The Paraphiliac Neuroses. Part IV. pictures Borderline Neuroses, while Part V. relates facts and histories of paranoia and schizophrenia in Psychogenesis and Psychotherapy of the Psychoses. The concluding Part VI. analyzes the manic depressive (cyclic) psychoses. At the end there is a complete glossary of every special term, which adds to the value of the work.

Dr. London declares that the book is presented as a reference to the psychologist, neurologist, psychiatrist, and the general practitioner, and to these this should be a work of considerable usefulness.

Publishers are Covici-Friede, New York City, and the price of the two volumes is $12.50.

The Diagnosis and Treatment of SEXUAL DISORDERS in the Male and Female, Including Sterility and Impotence, by Max Huhner, M.D.

Dr. Huhner published "Disorders of the Sexual Function" in 1917, many reprints and revised editions of which were made. So much real progress has been made in the study of this subject that an entirely new work became necessary, containing new methods of diagnosis, and eliminating erroneous treatments. This book, *Sexual Disorders,* is the new effort, being a practical treatise on disorders of the sexual functions in the male and the female. In order to make the work of the most practical value to the practitioner, especial emphasis is laid on treatment.

The book is divided into four parts, each of which contains several chapters. Part I.. discusses sterility, in chapters dealing with sterility in the male and in the female. Under Impotence Part II. deals with impotence in the male, functional impotence, psychic impotence and impotence in the female. Part III. discusses masturbation, in the adult male and in the adult female. Part IV covers half of the book, and is entitled "Disorders of the Sexual Function." Under this each disorder is discussed in detail, with general consideration, etiology, definition of terms, pathology, symptoms, diagnosis, prognosis, treatment, and author's opinion given, making the treatise practical, as claimed.

An exhaustive bibliography forms a part of the work and those interested will find abundant references to works and articles on both gynecological endocrinology and contraception, as well as on all subjects covered in the book.

Careful thinking and sound judgment, as well as a thorough knowledge of the subject, characterize the book.

F. A. Davis, Company, Philadelphia, is the publisher and the price is $5.00.

Have you purchased your new *Daily Log* for 1937? The complete, hansomely bound and charted one which we know as Dr. Colwell *Daily Log,* sold by the Colwell Publishing Co., of Champaign, Ill., is as neat and compact as you will find on the market. Every patient which consults or receives treatment in your office is entered on the date prescribed, with all the details of services rendered, charges, etc. At the close of the year your *Daily Log* is complete and ready for quick reference. It may be placed along side of your ledgers of preceding years for permanent files; yet it requires no more space than a handy library volume. Price: $6.00.

In *Methods of Treatment* by Logan Clendening, M.D., a Clinical Professor of Medicine, University of Kansas, an outline of all the methods of treatment in internal medicine are so clearly described the technique might be employed by one who never witnessed them. The author states in the beginning that this is his aim. He gathers together material scarcely discussed in other literature; as, the technique for spinal puncture, blood transfusion, the wet pack, and all therapeutic procedure.

Drugs, diet, hydrotherapy, etc., are described; application of treatments for various diseases are considered all in interrelated fashion. He opens the first chapter of the book with rather daring but wholly convincing statements regarding the importance of rest. "Rest is the most effective therapeutic measure at our command," he avers.

Dr. Clendening has an informal sytle of writing, as though he were consulting. His ability to infuse a conversational tone adds to this highly instructive work readableness to a delightful degree. With his viewpoint he leaves the full vitality of his own personality. *Methods of Treatment* is most excellently adapted for daily use by the practitioner.

Published by C. V. Mosby Co., St. Louis, Mo., Price: $10.00.

TUBERCULOSIS ABSTRACTS

More than a million school children were tested with tuberculin last year. Most of the positive reactors were urged to consult their family physician for an interpretation of the test. What is the significance of a positive tuberculin reaction and what shall the doctor do about it? Lewis J. Moorman gives a specific and balanced answer in an article entitled "The Duty of the Family Physician in the Presence of a Positive Tuberculin Test."

The Significance of a Positive Tuberculin Reaction

A positive tuberculin test, particularly in the period of childhood or adolescence, places before the family physician the difficult task of carefully following a few of the knotty threads which help to make up the complicated fabric of human life.

He must realize that a positive reaction means that the tubercle bacillus has entered the human organism and has produced a pathological condition known as tubercle. In reality, a positive test warrants a diagnosis of tuberculosis. It is doubtful if we are justified in continuing to teach that there is a difference between disease which does not produce obvious symptoms and which never manifest demonstrable pathological changes during life, and the same disease which gives rise to the symptoms of toxemia with the demonstrable signs of gross pathology.

Possibilities Following Infection

Infection with the tubercle bacillus carries a wide range of possibilities. The disease may never cause obvious symptoms or demonstrable pathology. It may, particularly in infancy, lead to the development of one of the acute forms of tuberculosis which usually, in a relatively short time, prove fatal. Generalized miliary tuberculosis, tuberculous meningitis and the acute pneumonic types of pulmonary tuberculosis are among the common forms. If the child with a positive tuberculin test lives to be three or four years of age without developing manifest progressive disease, even though the X-ray may show what we call the primary complex (a calcified or Ghon tubercle in the parenchyma of the lung with secondary involvement of tracheo-bronchial lymph nodes), we may reasonably anticipate that he will carry on through childhood without clinical manifestations of disease.

When he arrives at the age of puberty there seems to be an inexplicable susceptibility to active progressive disease either through endogenous or exogenous reinfection. Then follows the train of variable possibilities always accompanying manifest tuberculosis.

Time will not permit a detailed discussion of these posibilities. Suffice it to say that the individual with a positive tuberculin test faces all the possibilities inherent in the wide range of hematogenous clinicopathological manifestations from the relatively inert primary complex through mild, moderately severe, to overwhelming generalized tuberculosis; and from low-grade fibrotic bronchogenic lung lesions through progressive stages of caseo-ulcerative forms, to widespread bilateral multilobar involvement which so often precedes death.

Physician's Responsibility

What has been said emphasizes the grave responsibilities resting upon the family physician when he stands in the presence of a child exhibiting a positive tuberculin test. Obviously he must throw about such an individual every available safeguard.

A positive tuberculin test has other implications and places upon the family physician other obligations. Having discharged his duty with reference to the individual manifesting the evidence of infection, he must consider the probable source of infection. Infection with the tubercle bacillus means contact with the tubercle bacillus. This usually means intimate contact with some one who has open tuberculosis. Naturally some one in the home must be considered the most probable source of infection. A negative family history is of little importance. Each member of the family, including relatives, servants and others who may reside in the home, should have a tuberculin test; and every one exhibiting a positive test should have a thorough examination, including an acceptable X-ray of the chest. Any member of the household manifesting symptoms or signs of pulmonary disease should be examined even though the tuberculin test is negative. Repeated sputum examination should be made in suspected cases where sputum is available. Accepting a single negative sputum examination as final often leads to disaster.

Determine Source of Contact

If such a searching investigation fails to reveal the source of infection in the home, we must consider the possibility of contact with tuberculous teachers, neighbors, or visiting friends and relatives. Finally, hand to mouth infection must be considered. The baby on the floor, the child playing jacks or marbles on the street, may easily make contact with tubercle bacilli which have been deposited there by someone suffering from open tuberculosis. Occupants of the home may carry tubercle bacilli on their feet or they may be carried in by dogs and cats. Contaminated food may constitute another source of hand to mouth infestion.

Thanks to those who have instituted the wise handling of dairy herds in this country, and the added precaution of pasteurization of milk before delivery, we see relatively little bovine tuberculosis in the United States. However, we must not forget the possibility of infection from undiscovered tuberculous cows privately owned or in dairy herds.

We must admit that the execution of the proposed program is often difficult. Nevertheless, the obligation rests squarely upon the shoulders of the physician who discovers a positive tuberculin test. Fortunately for those physicians who may not be interested, or who may not desire to carry out such a program, the aid of specialists or voluntary and public health agencies in the field of tuberculosis may be secured. The same sources of service may be recommended to the physicians who are interested in executing the program but feel the need of help with certain phases of the examination.

THE TULANE UNIVERSITY OF LOUISIANA
SCHOOL OF MEDICINE

Department of Graduate Studies

Review Courses:

Medicine, Surgery, Gynecology,
and Obstetrics

January 3 through February 12, 1938
February 14 through March 26, 1938

For program and further information write:

Director of Graduate Studies

1430 Tulane Avenue New Orleans, La.

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

Fractures of and About the Neck of the Femur*

WILLIS C. CAMPBELL, M.D.
Memphis, Tennessee

A great deal of confusion and misunderstanding has existed regarding various characteristics of fractures about the hip as to physiology, mechanics, treatment and statistics of end results. Fractures of this region may be classified as (1) central or intracapsular fractures of the neck of the femur which involve the area from the lateral portion of the head to the lateral portion of the neck; they may be oblique or transverse; (2) impacted central intracapsular fractures of the femur in which there is more or less telescoping of the distal into the head or proximal fragment; (3) fractures of the trochanteric region, extracapsular; usually these are oblique and pass through both trochanters frequently breaking off the lesser trochanter. The last two groups constituted 56.7 per cent of 506 fractures of this region recently analyzed; the first, 43.3 per cent, and only in this group (central fractures of the neck of the femur) are we concerned with the frequent occurrence of non-union. Non-union in trochanteric fractures and impacted fractures of the neck of the femur is practically nil.

The frequent occurrence of non-union of fractures of the neck of the femur has variously been ascribed to (a) inefficient reduction, (b) inadequate immobilization, (c) improper after treatment, (d) osteoporosis or bone atrophy, (e) deleterious effect of synovial fluid, (f) shearing action at the point of fracture, (g) and impairment of circulation to the proximal fragment. To briefly summarize present knowledge obtained from anatomic and physiologic research and from practical experience, there are certain prerequisites that must be fulfilled if osseous union occurs:

1. Reduction must be accurate; union occurs in this region through endosteal callus rather than by periosteal bone formation. Secondly, as the head of the femur is deprived of most of its blood supply following the fracture, accurate apposition must be present if revascularization of the head occurs.

It has been demonstrated innumerable times, both by direct visualization during open reduction and by two view roentgenograms, that accurate reduction can be obtained by either the Whitman method or the Deadbetter modification.

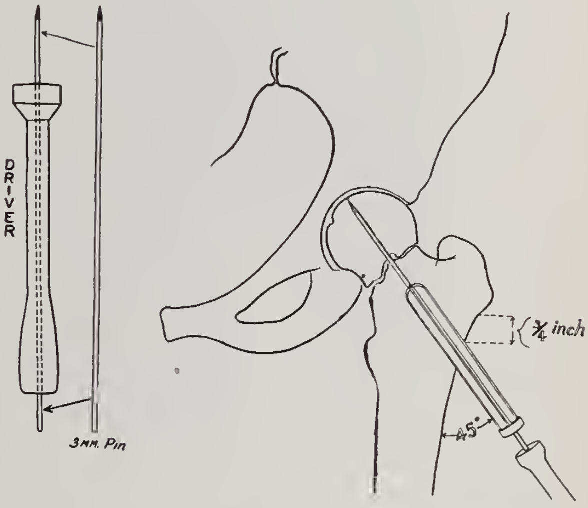


Fig. 1. Graphic illustration of Johannson method of securing proper direction of nail. The author's tunnel driver greatly facilitates application.

Thus in expert hands inaccurate reductions would hardly account for many non-unions.

2. Sufficient immobilization: A well fitting spica cast provides sufficient immobilization grossly to maintain the position of the fragments as demonstrated by the roentgenograms, but undoubtedly there is con-

---

*Read before the Section on Surgery at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 12, 1937.

siderable play at the fracture site, particularly in obese patients. This small amount of shearing action may be sufficient to prevent the formation of capillaries across the fracture site.

3. For the head to remain viable and permit bony union, an adequate circulation to the head or rapid revascularization of the head must occur. The site at which the majority of fractures of the femoral neck occur deprives the head of most of its blood supply, as the nutrient artery through the neck is the chief source.

In marked contrast to this physiologic picture, and to a degree supporting the prerequisites of union in complete central fractures of the neck of the femur enumerated above, impacted fractures of the neck of the femur unite readily, despite the fact that the main blood supply to the head is interrupted. The intermeshing of the fragments is usually sufficient to maintain a firm contact by which rapid restoration of circulation is secured. For this reason any attempt at improvement of position by breaking up the impaction is fallacious and at times disastrous.

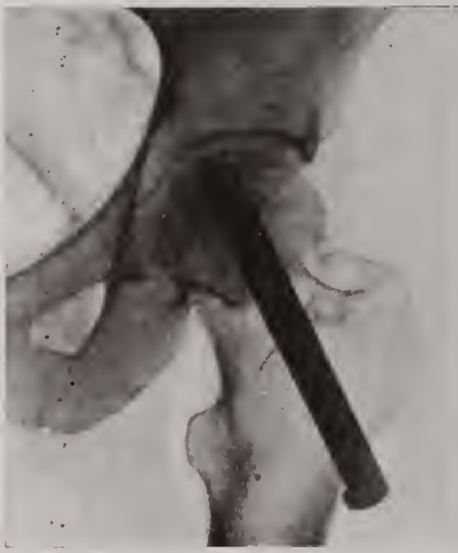


Fig. 2. Case 1. Anteroposterior view, nail in position.

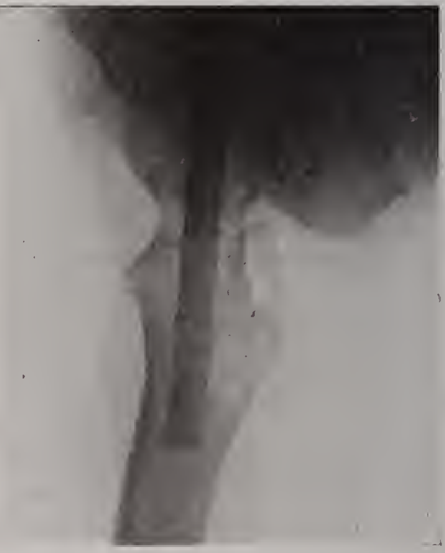


Fig. 3. Case 1. Lateral view, nail in position.

Trochanteric fractures offer no problem as to union. Reduction is easily accomplished; opposing fracture surfaces predominantly contain cancellous bone which is markedly osteogenic; secondly, each fragment independently has an adequate blood supply.

Impacted central fractures are relatively simple clinical problems. Treatment consists of fixation by a single or double spica cast to prevent possible disruption of the impaction. This is maintained for six to eight weeks, or, as an added precautionary measure, no weight bearing should be instituted for two months depending on the individual case in question.

Intertrochanteric fractures, although they unite readily, present certain mechanical features that must be satisfied if a good functional result is to be obtained: first, maintainance of length—with improper treatment 2½ inches shortening is not uncommon; second, normal angle of neck and shaft of femur—this angle is 115 degrees (a coxa vara deformity occurs either from improper reduction or from too early weightbearing); third, normal rotation—immediately following this fracture the powerful rotators attached to the trochanter rotate the distal fragment outward. This rotation must be corrected.

Briefly, the maneuver to obtain proper reduction consists of traction and internal rotation of the extremity with the hip in 120 degrees abduction. However, proper initial reduction with an ordinary spica cast is not sufficient. Traction on the affected extremity must be constantly maintained under strict surveillance until consolidation is complete. This is accomplished efficiently with the least discomfort by means of a Hoke-Martin traction apparatus. Prior to applying the cast on an ordinary fracture table strips of adhesive are applied to each side of the affected extremity extending from the upper third of the thigh to well below the ankle. A cast is then applied extending from the nipple line to the toes on the well side and to the knee on the affected side. The Hoke-Martin traction apparatus is incorporated directly into the cast on the affected side. This apparatus consists of two parallel metal bars with a ratchet windlass at the distal extremity. The adhesive on the extremity then maintains a taut constant traction by attaching it to the windlass.

This cast is maintained intact for eight weeks. Full weight bearing, however, should not be instituted for one month.

The procedure which Royal Whitman described in 1896 was a great advance in the treatment of central fractures of the neck of the femur. This method was rapidly adopted with considerable variation as to the results. Some reported unusually good results due to the inclusion of trochanteric and impacted fractures, and lack of discrimination as to the physiology of these fractures. In 1932, I carefully analyzed 157 fractures of the neck of the femur which had received adequate treatment. Seventy-five were carefully followed and x-rayed after the elapse of one year. Using the criteria that reformation of bony trabeculae must be demonstrated before osseous union could be determined, only 40 or 53.3 per cent of the cases had solid bony union. This compared favorably with the report of a survey made by the American Orthopedic Association in 1929 which showed 50.4 per cent union of 201 fractures from various well-known clinics.

As stated above, much was to be desired as to end results from the Whitman method of treatment of central fractures of the neck of the femur. Gradually this method is being replaced by the manifold advantages of internal fixation, namely, higher percentage of excellent results, increased comfort, the rapid convalescence and the decreased mortality.

Internal fixation by nails, screws and pegs of this fracture is by no means new, as the first report was made by von Langenbeck of one case treated by this method in 1850. Successful results were reported by Nicolaysen and others prior to the advent of x-rays. Denegre Martin in 1922, and Thomas in 1921, reported excellent results, using wood screws as a means of internal fixation. At this time internal fixation was not uniformly successful due either to inaccurate reductions or to lack of dexterity on the part of the surgeon in introducing the means of fixation. In consequence, this method fell into disuse with the exception of a small number who were probably more expert in properly placing internal fixation, notably the late Denegre Martin. Recently his end-results were reviewed by Dr. Brewster, of New Orleans, who added 21 cases of his own treated by this method; he reports 89.68 per cent successful results in a series of 53. The more recent literature abounds with various ingenious methods of obtaining internal fixation.

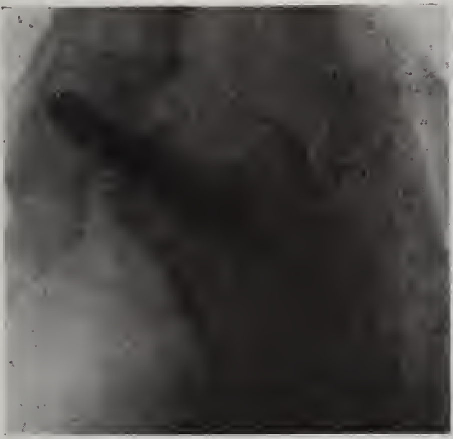


Fig. 4. Case 2. Nail in position, firmly securing fragments.

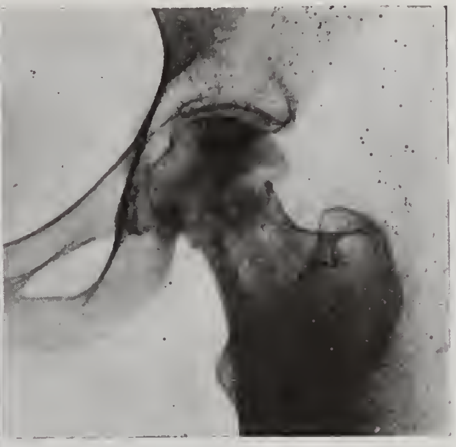


Fig. 5. Case 2. Solid bony union after removal of nail. Note a small piece of metal remaining in the head, a portion of the end of the tunnel. This complication should not occur if heavier material is used, as modified by the author.

Smith-Petersen in 1925 introduced a three-flanged nail which he placed through the neck of the femur by means of a wide exposure of the hip joint, and to him is undoubtedly due the credit for reviving interest in internal fixation which is rapidly becoming the method of choice. This nail has the advantage of securing fixation and preventing rotation. Many who have adopted this method believe that the operation is too formidable in the aged, and are applying the nail by inserting it through an incision over the trochanter, so-called "blind nailing," as had been used by other surgeons prior to Smith-Petersen. Local anesthesia may be successfully employed if indicated or desired. It has been proven that just as accurate fixation can be accomplished and maintained in this manner, and without any appreciable surgical shock. Since this method has become popular, other means of internal fixation have been employed, as multiple spikes (Gaenslen), two pins (Knowles), two drills (Rowlette, Haslem, Siegert, Morris, Key), three pins threaded in outer half with a small nut (Moore). All of these have two or more pegs which traverse the neck and head so as to prevent rotation of the head. In some the head and neck of the femur become a veritable pin cushion. Excellent results have been reported by all of these methods; the problem is apparently a question of efficient internal fixation. The amount of foreign material if pins or spikes are used is approximately the same as the Smith-Petersen nail, but has the advantage of being much less expensive.

No one has been a stronger advocate of the Whitman procedure than I, but after seeing the results of Smith-Petersen and others, I have come to the conclusion that internal fixation not only gives a higher percentage of excellent functional results and firm osseous union, but also materially decreases the time in which union is secured, so that weight bearing and walking without support is obtained in from four to six months as compared to six to twelve months by the Whitman method. Also function in the knee and hip is materially conserved and permanently restricted motion is exceedingly rare. The mortality has been materially decreased by the less extensive means of immobilization and the abbreviated confinement to bed.

My colleagues and I have employed the three-flanged nail in 43 cases of complete, central or intracapsular fractures of the neck of the femur. In eleven, the procedure as described by Smith-Petersen was employed, which consisted in a complete exposure of the hip joint and trochanter; in 32, the nail was inserted through a lateral incision with "blind nailing." The Smith-Petersen technic has been entirely discarded, as so-called "blind nailing" is a less extensive surgical procedure.

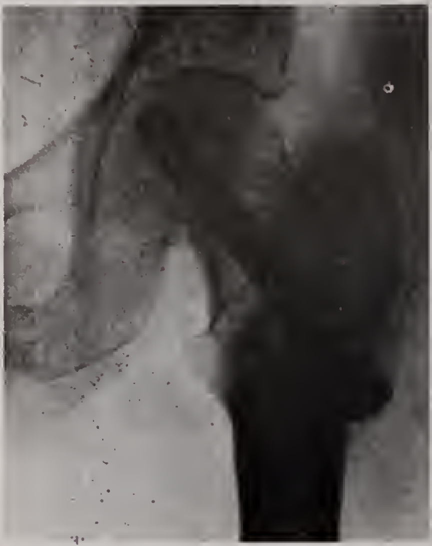


Fig. 6. Case 3. Woman, age over 80, nail in position.

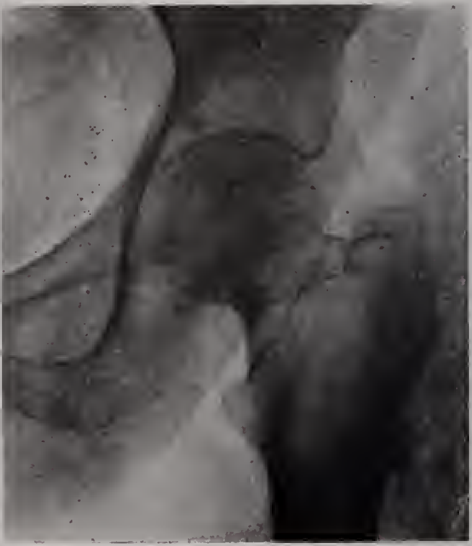


Fig. 7. Case 3. Firm bony union after removal of nail at the end of seven months

The present technic of insertion may be described as follows: Reduction is uniformly accomplished by the well-known Whitman abduction method. The patient is placed upon an orthopedic table or on a similar apparatus employed for the application of a spica cast.

The hip is manipulated so as to disengage the fragments, carried to the limit of abduction, slightly hyperextended and the extremity rotated moderately inward. The trochanter should also be lifted anteriorly as the fragments are manipulated. No roentgenogram is usually made at this time. After reduction abduction is reduced to about 120 degrees with continued moderate internal rotation so as to facilitate insertion of the nail. An incision approximately three or four inches in length is now made over the lateral aspect of the greater trochanter and upper two inches of the shaft exposing the lower half of the greater trochanter and upper one or two inches of the shaft. A 3 mm. steel wire peg is then placed into an ordinary chuck drill, and the sharp end of the wire inserted into the center of the shaft about ¾ inch below the trochanter. Great care must be taken that the wire drill makes an angle with the shaft of about 45 degrees and is angulated forward about 10 to 15 degrees to conform to the normal anterior deviation of the neck. The wire is now drilled in this direction the exact length of the nail to be inserted, after which roentgenograms are made in both planes as described above which will confirm reduction and the exact direction of the wire drill. If reduction has not been accomplished, a second attempt can be made, but this has not been necessary in any case; also if the wire is not accurately placed other attempts can be made until the desired direction is obtained. If reduction and direction of the wire is satisfactory, the wire should be drilled into the head of the bone to within ¼ in. to ½ in. of the joint, depending on the length of the proximal fragment. The protruding portion of the wire is now measured by placing a wire drill of the same length parallel with the protruding portion, and a nail of exact length selected. I employ a modification of the three-flanged Smith-Petersen nail with a steel tunnel through the center, which is slightly larger than the wire. The nail is then threaded on the wire. A driver with a tunnel in the center is now threaded over the wire and the nail driven through the neck for one-half of its length and the wire removed. This prevents any possibility of the wire being driven in front of the nail and bent so that it is difficult to remove. The nail is then completely driven into place and the driver placed over the trochanter, and the instrument tapped a few times with a mallet so as to closely approximate the fragments. Roentgenograms are now made to confirm the position and the wound closed. The hip can be freely moved in the socket. Roentgenograms should not consume more than fifteen minutes, and should be developed and returned to the operation room in five minutes. The entire procedure requires not more than thirty to forty min-

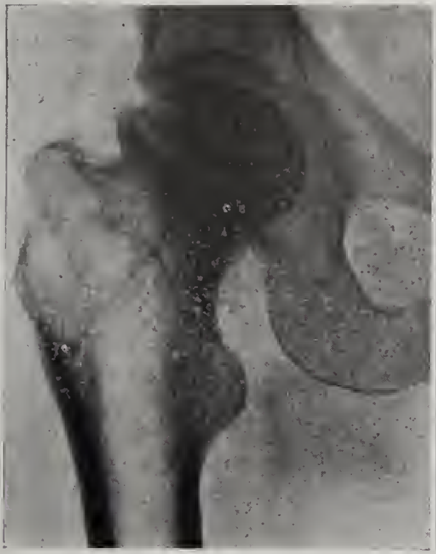


Fig. 8. Case 4. Apparently solid bony union but with possibly aseptic necrosis of the head. Time alone will determine the functional result.

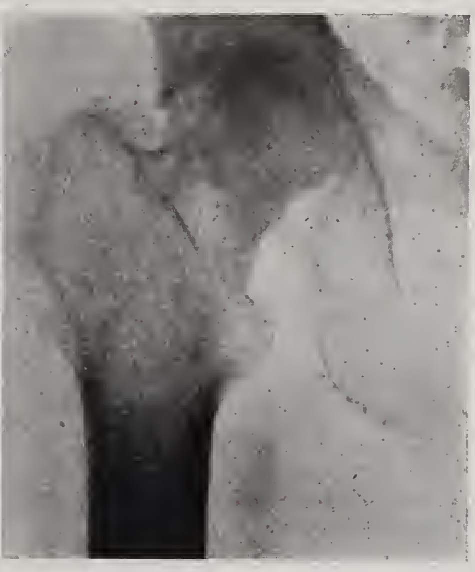


Fig. 9. Case 5. Destructive changes in the head, evidently due to extreme atrophy.

utes. Unless there is complete cooperation of the roentgenologist, the procedure is unnecessarily prolonged. When this method was first adopted, we had great difficulty in securing proper direction of the guide wire, but with experience, and by following in detail the technic described above, we have become more dexterous.

No originality in the use of the nail and wire is claimed as the method was first described by Johansson, of Sweden, who employed a Kirschner wire and a tunnel through the nail, but as the small flexible wire may bend when it strikes the head, there is danger that the wire may curl itself within the head, making its removal impossible without much damage to the patient and chagrin of the surgeon.

After operation the limb is placed in a Hodgins splint or a short boot cast is employed with a stick incorporated to prevent rotation. At the end of three weeks roentgenograms are made to confirm position which we have always found undisturbed. Motion in the knee is instituted at the end of four weeks, and the patient may be removed to his home. At the end of three months, walking is instituted without weight bearing, and at the end of four months, crutches are discarded if union is firm, as demonstrated by the roentgenogram, which should display trabeculae transversing the line of fracture. Undoubtedly it is possible that function may be assumed earlier, but the physiologic status in this location is such that firm union is always slow.

The nails are removed without difficulty at six months as there is usually sufficient aseptic necrosis adjacent to the metal to permit easy extraction. Of the 43 cases, only 23 have been under observation for a sufficient period to draw definite conclusions as to end results. All obtained a solid osseous union except one. In this instance the nail was removed at four months and a typical non-union followed. Of the 22 with solid union, two have degenerative changes in the head and one complains of arthritic symptoms with pain and disability. Seven died before end results were determined; none of these can be attributed to immediate postoperative complications. The remainder of the cases are either too early or of questionable outcome.

The end results from this method have been most gratifying. Although definite and final conclusions cannot be deduced from an insufficient number of cases and the short lapse of time since its adoption, present conclusions are that internal fixation gives by far the highest percentage of excellent functional results in the shortest period of time which is of vast importance in elderly individuals. Apparently the percentage of bony unions will be increased from 50 to 85 or 95 per cent. Even with expert technic there will be a certain percentage of technical errors; secondly, in view of the physiologic status of this region, there will always be a small percentage of poor results which one must anticipate.

From a recent survey of 506 fractures about the hip, the following conclusions can be drawn: (1) Intertrochanteric fractures and impacted fractures offer a much less complicated mechanical, physiologic and clinical problem than central fractures of the neck of the femur. Union can be expected in practically 100 per cent with excellent function. The mortality associated with trochanteric and impacted fractures was slightly higher which is in part attributable to the age group which is slightly higher, the average age being 78.8 as compared with 74.4 for central fractures of the neck of the femur; (2) Despite the great advance with the advent of the Whitman method of treatment, internal fixation is proving to be superior in all aspects with an increase of solid union from 50 to 85-95 per cent.

Estimates in the past and even at the present time of end results of fracture of the neck of the femur are confusing because all three groups are included, many of which would unite even without treatment. It is quite evident that we must carefully differentiate these fractures as to physiology, treatment, and end results to avoid confusion and promote accurate data and an understanding of the subject.

869 Madison Ave.

The Private Physician's Part In the Control of Syphilis*

R. A. VONDERLEHR, M.D.
Assistant Surgeon General Division of Venereal Diseases, U. S. Public Health Service
Washington, D. C.

One of the things that has impressed me in connection with your annual meeting is the prominent place which has been given to your public health section in the program. I feel that this should be particularly encouraging to your state health officer and to your local health officers inasmuch as the future of public health is very much dependent upon the medical profession.

The private physician's part in the control of syphilis is manifold. It is important that the physician know the extent of the syphilis problem—what he has to deal with. He must know the methods of diagnosis, particularly those that may be utilized early and so bring the patients under treatment early. As all know, early diagnosis is one of the fundamental points in the control of any communicable disease. Of great importance and something which is peculiar to the control of syphilis is early and adequate treatment to render the patient non-infectious.

The physicians, therefore, should know how to treat patients and as far as possible utilize accepted and standardized treatment procedures.

A third very important point is the use of case-finding and case-holding methods, not only by clinics but also by physicians in private practice. Finally we know that it is absolutely necessary that patients be informed as to the dangers of untreated or improperly treated syphilis, and that the public be made aware of the extent of the problem, what to do to prevent syphilis, and what to do if infection does occur.

The Public Health Service has conducted surveys of sources of treatment to determine prevalence and incidence in some fifty places. We have attempted to learn the total number of patients under treatment at a given time and to find out how long these patients remain under treatment. With these two items of information it has been possible to determine the prevalence and estimate the incidence of syphilis.

If the whole population is divided into age groups and the population infected with syphilis is divided by age and sex in a comparable way, it is noted that there is a vast amount of newly acquired syphilis that occurs in the age group between 15 and 29 years. That is the time when most people acquire syphilis. Going a little bit further, we have learned that between the ages of 11 and 15 years, approxibmtely 10,000 children acquire syphilis in this country every year, and between the ages of 11 and 20 probably 100,000.

Graphs to indicate the most common age at which the white male and the white female is infected with the disease, show that the modal age for the white male is approximately 22 and for the white female it is about 21. The great majority of the infections occur between the ages of 20 and about 28 for the white male, and between 16 and about 30 for the white female. In similar graphs for negro males and females, the modal age is slightly younger in both cases—around 20 for males and 18 for females. This information is all based on series of treated cases and we have been able to utilize that information and apply it against the records of some of the leading clinics of the country in working out age charts.

In the diagnosis of syphilis you are all acquainted with the efficiency and the effect with which you may utilize the serological tests in finding cases. The opportunity for using this is something we are all familiar with and which we should apply. Unfortunately the serological test for syphilis does not give a positive reaction for the first few weeks. This means that all of us, and particularly physicians who are treating a great deal of syphilis, must utilize the dark field in making a diagnosis. The dark field is 94 per cent efficient if the examination is repeated several times on successive days. Now it is not possible for physicians in rural communities, and most of the population in this state is rural, to send their patients to a central laboratory to have that dark field examination made. Furthermore physicians might not be called upon more than once or twice a year to make this examination so I do not believe we would be justified in expecting them to be familiar with its technic. These physicians should make use of the so-called "delayed dark field" method by which serum from a suspected lesion is mailed to a distant laboratory for examination.

---

*An abstract of an address presented before the Section on Hygiene and Public Health at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 12, 1937.

The second important aspect of the control of syphilis is the treatment. The Public Health Service became very much interested in this during the World War and in the years immediately following learned that there were literally dozens of schemes for treatment. As a result of this finding, The League of Nations Health Organization started an investigation about 1927 while Dr. Parran was in charge of the Division of Venereal Diseases of the United States Public Health Service. They asked for the cooperation of the United States government which, in turn, sought the cooperation of the leading clinics in this country. Case records were obtained from these clinics and sent to Washington for transmittal to Geneva. The League of Nations studies have gone only into the question of the treatment of early syphilis. The Public Health Service, however, made duplicate copies of all of the records forwarded to Geneva and also obtained records of other patients with syphilis having received treatment for almost every type of syphilis. Several papers reporting the outcome of these investigations have been published. These studies have become known throughout the country as the studies of the "Cooperative Clinical Group."

As a result of these studies, we have learned that the most effective method is the continuous-alternating method in which 30 doses of one of the arsphenamines and 60 doses of one of the heavy metals are administered over a period of some 80 or 90 weeks. These drugs should be given in series—a series consisting of ten injections of one of the arsphenamines followed by a course of bismuth. When the continuous-alternating method is followed and the patient gets the total amount of treatment specified, we may expect to obtain a satisfactory result in approximately 80 per cent of patients. If, on the other hand, the intermittent scheme is used with rest periods, we obtain a satisfactory result in only 65 per cent. If the patient is not cooperative and comes in just now and then, but he still gets in the end the 30 and 60 doses, we obtain a satisfactory result in only 35 per cent of patients. You can see, therefore, that the important thing is to keep the patient under treatment regularly.

We have also learned that the continuous-alternating method of treatment is an aid in preventing the patient from lapsing during treatment. When you use the continuous-alternating scheme you may expect relapse in 13 per cent of patients. That includes both clinical and communicable relapses which are important both with regard to the future welfare of the patient and from a public health standpoint. Some people have advocated that if the individual cannot come in regularly for treatment and obtain the total number of doses it would probably be better, from the public health standpoint, to let the patient go without giving any treatment at all. That is heresy. We know that comparatively few doses of arsphenamine render the infection non-communicable.

Studies at Johns Hopkins Hospital have shown that in untreated people cardio-vascular involvement occurred in 45 per cent. Taking the average patient who had some treatment, from one dose up to adequate treatment, it was found that only four per cent had some evidence of cardio-vascular disease. The same rule holds for central nervous system syphilis. Twenty-five per cent of the patients who had been untreated developed central nervous system involvement, yet if they had some treatment, even inadequate, only six per cent had this involvement. We have come to the conclusion that any amount of treatment, no matter how small, is desirable in syphilis. Try to give the best; give adequate treatment if you can, but, if not, give some treatment at any rate. Cooperate with you local health officer and try to attain adequate treatment through the application of case finding methods in all cases. So much for the treatment of acquired syphilis.

The next important point is the use of treatment in the prevention of prenatal syphilis. We know that if a pregnant woman is syphilitic and has no treatment she will bear a healthy child in only 17 per cent of cases. As contrasted with only 17 per cent of heathly children in untreated women, we find that if we give adequate treatment for the syphilitic pregnant woman, we will obtain healthy children in 91 per cent of the cases. Courses consisting of ten doses each of one of the arsephenamines and ten of bismuth started before the fifth month and continued until the end of term is best. I know of no place in public health work where an opportunity presents itself to prevent the transmission of a communicable disease with treatment as it does in this particular instance. One great difficulty we have, however, in the treatment and prevention of prenatal syphilis is in getting pregnant women in sufficiently early to take advantage of this remarkable result. If it is impossible to get the patient before the fifth month, however, do not neglect the opportunity which treatment provides. We know that treatment started at any time during pregnancy gives on an average 65 per cent healthy children as contrasted with 17 per cent when no treatment is given.

The question of case finding and case holding should strike a very popular appeal to each of you. It so happens that this work was started by a county health officer in New York State, who died some four or five years ago. A great deal of work has been done also by Dr. D. C. Smith, professor of syphilis and skin diseases at the University of Virginia. This physician is a native of Mississippi. We cannot advocate too strongly that all of you use case finding records in your treatment. You are all familiar with the modes of transmission of syphilis in marriage and the need for case finding methods there. It is not necessary to stress that point.

To recapitulate, I would like to re-emphasize the necessity for the physician in private practice to use the most modern methods of treatment and to cooperate with the state and local health departments in these case finding programs. In Sweden before 1916 the people were getting along pretty much like we were. In 1916 an extensive program was started. In about three or four years the disease began to show evidence of being brought under control. The number of new cases dropped from 5,000 to about 1,500 in 1922 and since that time has dropped below 500.

As regards syphilis as a cause of infant deaths, in England and Wales, the rate had decreased to about one death to 2,000 live births in 1933. Since the Scandinavian countries and Great Britain are relatively small countries with a homogenous population it should be quite easy to control syphilis there. We, in this country, unquestionably have a much bigger problem.

One of the encouraging points in connection with our present program has been the desire of state medical associations to cooperate with us. Dr. Parran last November requested that the president of each state medical society appoint a committee which would recommend the measures that might be utilized in the treatment of syphilis in the different states. The problem is not the same in Mississippi as it is in Colorado, for instance, and what we should like for you to do—for each state medical association to do—is to tell us and your state health officer what you think your program should be. About 15 state medical societies have appointed syphilis control committees which submitted reports to us. In Mississippi the chairman of the syphilis committee is Dr. Underwood and we are looking forward to his report with a great deal of interest. I can assure you that all of the reports of the several state medical societies will be carefully studied ,and that those reports will form the basis for the future program against this disease. It is inconceivable that we shall be able to make progress without the support and cooperation of the medical profession, health officers and the public. Syphilis today is your problem. Take your place today in support of this campaign.

DISCUSSION

DR. W. K. SHARP (New Orleans, La.): My friends, it will not be my purpose to discuss in detail this paper, so well presented by Dr. Vonderlehr, since he is a specialist in syphilis control and has brought to our attention some clear-cut statements. The value of the private physician in the control of syphilis has been brought to our attention on numerous occasions. No health department can succeed in the control of any communicable disease without the earnest and enthusiastic cooperation of the family physician. As a rule he sees the cases first and usually has an opportunity to make the diagnosis first. Unless he will agree to report these cases and cooperate by administering adequate treatment, the task will be difficult. The health officer will have to win the confidence of the family physician by offering to him cooperation. This can be extended in several different ways. First of all, arsenicals can be furnished for the treatment of cases, depending on local circumstances and the economic status of the patient. The family physician in his daily contacts with the patient can gain much valuable information concerning the history of the case, the epidemiology, contacts and suspects, but the physician himself is the one that should be encouraged to treat these cases. If the family is unable to pay for the treatment, provision should be made for paying the physician. The state health department can provide for free laboratory service which is a big help in establishing the diagnosis and in most instances it is of financial importance. The control of communicable diseases in its broadest aspects depends to a large extent on the point of view of the state health officer and his staff, both state and local. There should be first of all in every state well trained state health personnel so as to offer leadership, public health nurses, and especially, competent, recognized diagnostic laboratory service. There should also be in every local area, either county or district, a well organized full-time health department. With this type of service available for the physician the task is much easier. I want to remind you of a statement just made by your distinguished state health officer, Dr. Felix J. Underwood. In commenting on the general situation, he stated that:

> "The State of Alabama in its efforts to develop a constructive, well rounded public health program, long ago created a health system which would be administered by a competent state health officer under the direction of its organized medical association, and that this state now has all of its counties organized with full-time health departments except eight or ten out of a possible sixty-seven, and this state has only had four state health officers during its entire public health history, three of whom have died. Kentucky has practically the same record with only two state health officers, one of whom died and this state now has over eighty county health departments."

I also remind you that Mississippi with its splendid leadership now has over thirty full-time health departments and has made one of the outstanding records in the United States. They have only had two state health officers in Mississippi's public health history. I emphasize this point for the following reasons:

These state health departments being so closely affiliated with state boards of health who are selected by the state medical association bring about more stability and security of tenure of office. There is no political interference by constant changing of the state health officer, which of necessity breaks down the morale of the staff and others. So after all the first essential in developing a communicable disease control program is to develop a strong state health department with well-trained personnel. This together with full-time local health departments under the direction of competent, well-trained medical officers will undoubtedly prove to be of tremendous value to the practicing physician and the community as a whole.

It is my impression that the Mississippi Medical Association, through its state board of health and its state health officer has definitely assumed responsibility long ago for the control of communicable diseases, syphilis being one of the diseases. A most excellent tuberculosis control program has been developed in Mississippi through the cooperation of the physicians, the Mississippi Tuberculosis Association and the State Health Department. This offers a splendid example of what can be done, and now since syphilis has been brought out in the open and is being labeled in plain language, every one can understand that the fight is on and that there is a new spirit of friendship, closer cooperation and leadership and that syphilis, not unlike other communicable diseases, will soon pass into history. So I want to congratulate, first of all the profession of Mississippi and, second, the lay groups, in their efforts to control this dangerous disease and especially do I want to congratulate you on the work which is being done by your splendid state health officer. His program is practical, full of common sense and is workable, and is so recognized throughout the state and the nation.

DR. A. G. WARD (Jackson): I appreciate very much this opportunity of appearing on this program. I had the pleasure of being in Washington during the last Christmas holidays and hearing Dr. Vonderlehr at the initiation of this work and was greatly stimulated by it.

In my own private practice, for the short time that I have been in practice, I have seen very few cases of syphilis during the acute stages, but have come in contact with numerous latent and inadequately treated cases.

In speaking of the private physician's part in this control program, I should like to emphasize its importance. It is our responsibility when seeing a case of syphilis, particularly an early case, to correctly outline a course of treatment and to impress the importance of this on the patient. If this is not properly done, we may be guilty, as you can understand, of committing this patient to a life of poor health, or even insanity and the various other well known horrible complications of inadequately treated syphilis.

The first step in this responsibility is that of properly making the diagnosis. With the present means at our disposal, that is the cooperation of the state board of health with its excellent laboratories, there is no reason why adequate laboratory procedures cannot be taken to either make or break our diagnosis. The diagnosis cannot be too strongly emphasized. A case was referred to me recently with the verbal diagnosis of syphilis and one to whom one injection of arsenic had been given without any laboratory help to establish this diagnosis. On careful examination, I found that the patient was suffering from scabies and not syphilis. Such a physician is as much to be critized for improperly diagnosing this type of disease as is the one for improperly treating such a disease. So many of our patients come to us with the statement, "A doctor told me I had syphilis, gave me six or eight shots in the arm and told me that I was cured." This man has been rendered "non-infectious," but has, of course, been very poorly advised as to the amount of treatment.

Our next responsibility, and probably the hardest to discharge, is that of case finding, tracing down the source of infections and reporting these to health officials. This is extremely difficult to do in private practice.

In treating intestinal parasites, particularly tapeworm, we do not consider the condition as eradicated until we have found the head of the worm and the source of all trouble. This same is true of syphilis. No amount of treatment will eradicate the disease unless we energetically go to the source of contagion. Dr. Vonderlehr made a statement in his paper that even the smallest amount of treatment, though inadequate, was better than no treatment at all. I should like to differ with him in this respect. While a small amount of treatment may be of some benefit, it may also be only sufficient to obscure the disease and make its future treatment difficult. In this respect, it seems to me better to have no treatment at all than just enough to make the future diagnosis difficult.

Syphilis remains a disease of the dark, contracted in the dark, knowledge of it kept in the dark and conversation about it being under cover, so to speak, and until it is brought out into the open with frank discussion by both the professional and lay press, we need expect very little reduction of its damaging course.

DR. SEALE HARRIS, JR. (Birmingham, Ala.): I also had a ride on a train recently. I came down yesterday and I ran into two men who had charge of the distribution of a great deal of money for post-graduate education among the rural doctors; they were particularly interested in Tennessee and Mississippi. We were discussing syphilis as public health officers. Both of these men with one accord said they felt that Mississippi had the best state health officer of any state in the union. (Applause). Dr. Sharp also spoke of the fact that the public is ready for the proper treatment and proper education in regard to syphilis. He is right—they are, and the U. S. Public Health Service, I am glad to say, has put out much on the subject. The public wants to know about syphilis, about the treatment and control. I was very much impressed not long ago at a meeting of a county medical society—two of the ministers had been appointed to approach this county medical society and ask permission to cooperate with them in the control of syphilis. They said they knew nothing about it, and they thought something should be done, and they wanted to help. Unfortunately this county society was not ready for it—they had to put the preachers off until they could get ready. We have got to get ready. People are coming in every day—I have had three in the last ten days, who had no signs of syphilis, but they were worried and they wanted to come in and find out if they had it. The public is absolutely ignorant on the question of syphilis and the transmission of syphilis is largely due to ignorance. About 50 per cent of the infections of syphilis are due to innocence, that is, due to ignorance. Dr. Vonderlehr mentioned one of the results of case findings. This makes me think of one which I personally was acquainted with which was entirely due to ignorance. This girl about 19 years old was pregnant. During the later stages of her pregnancy her husband indulged in extra-marital relations. After her delivery the husband kissed the baby on the mouth, giving the baby a chancre; that baby nursed the mother, the mother developed a chancre on the nipple. While she was coming to the clinic to find out what this was, she left the baby with her mother, who had also had a newborn infant. The grandchild nursed the grandmother, the grandmother developed a chancre on her nipple. She did not know what it was and nursed her own baby. Her own baby developed a chancre on his lip. In a month she developed other lesions and infected her husband, so there you are—the son-in-law to the wife, to the child, to the grandmother, to the uncle, to the grandchild. That was purely due to ignorance. I also at one time saw at Vanderbilt clinic four new patients, two of them grandmothers and two grandsons. The grandson of one was about 18 months old, the other three years. All of them had congenital infections brought in by the father to the mother. We have to educate the people and stop the hush-hush policy. Now as I have said, we have got to get ready—there are any number of ways of treating syphilis. Up to now there has been no standard treatment. We have listened to the detail men who tell us the various things, and we have believed them, and we have let the patients go out without adequate treatment. Now the Cooperative Clinical Group which is cooperating with the U. S. Public Health Service is composed of the heads of the best syphilis clinics in the country; they are pooling their material; they have had more experience. Their results should be the ones we should follow. We should follow their treatment and follow it out. The continuous plan is so much superior to the intermittent plan that the prolonged plan of treatment is the method of choice. Now the control of syphilis is going to have to be done with the aid of the U. S. Public Health Service and our own state and county services. We have got to cooperate by pooling the cases, by letting them get into case findings, when we are not able to do it ourselves. You would be surprised how easy it is to trace the source of infection sometimes, but it is hard sometimes. We have got to cooperate with the health department, with the organized men who know how to put on the drive and try to help them and treat our patients properly according to their plan of treatment.

DR. JOE. E. GREEN (Laurel): I am not going to say much, but I do want to appeal to you physicians who do obstetrics, to take Wassermann tests on all your expectant mothers. It is easy for us to criticize the father and sometimes the mother; but the unborn infant certainly has the right to be born with a healthy body. During the last few years, I have adopted the plan of taking Wassermanns on all my cases, regardless of the social standing of the patient. If we adopt the plan of doing this on the first visit of the mother to our office, we will find it no trouble, because she comes to place herself under our care and expects a thorough examination.

Not more than two weeks ago, a fine young woman came into my office smiling and I remarked, "I know exactly why you are here." She smiling replied, "You are right." Routine examination was then made and Wassermann taken. Just before leaving for this meeting, Wassermann card was returned reading three-plus. I immediately informed her of the seriousness of her condition and assured her that unless she was willing to take regular treatment during the entire nine months, her baby would be born with the same blood infection that she had; but if she would follow the treatment prescribed, ninety-eight per cent of the cases were successful and her baby would be born with a healthy body. I also explained that the treatment would probably cost her from one hundred to one hundred and fifty dollars. She accepted all suggestions and is now taking treatment prescribed, which places all responsibility on me.

DOCTORS, PLEASE TAKE WASSERMANNS ON ALL EXPECTANT MOTHERS!

DR. DAN WILLIAMS (Gulfport): At the beginning of the year I got an inquiry from the state board of health as to what the county health department was going to major. That was a little before this program was launched. I wrote back in reply to that question, "We are going to major on syphilis." We have majored on several things—malaria, tuberculosis, hook-worm, and we have made very satisfactory progress, and I was ashamed and wanted to cuss some when the state board of health was practically put out of business in their campaign against this disease several years ago, when the legislature refused to make an appropriation to continue that work. It was one of the greatest mistakes ever made. I want to recount just a few observations applying to this program, and I want to say that some of it applies to members of the state board of health. They did not know a thing about controlling syphilis. The public health problem can be easily controlled but the curing of the disease is a hard thing to do.

DR. VONDERLEHR (closing): I do not believe that I have anything to say except in connection with Dr. Green's discussion. I think that the provision which is being made in many states making the premarital examination mandatory is fine. It is by such legislation that the transmission of syphilis in marriage can be controlled. I think those taking part in the discussion have pretty well covered the subject.

Syphilitic Meningitis With Ocular Manifestations*

A CASE IN POINT

VAN DYKE HAGAMAN, M.D.
Jackson, Miss.

This discussion is presented because of the interesting diagnostic and clinical features of the case reported.

Authorities agree that acute syphilitic meningitis is a relatively rare occurrence. Stokes reported that neurorecurrences were comparatively rare, even in special practice. Moore reported that neurorecurrences occurred in 0.2 per cent of 2,675 cases of early syphilis. Zimmerman reported an incidence of 1.6 per cent in 1,400 cases of early syphilis. Merritt and Moore felt that the total incidence might be about 50 per cent greater. Their findings indicated about two-thirds occurred in early syphilis.

Merritt and Moore found only 80 cases in 15 years in three general hospitals in Boston, with a bed capacity of over two thousand. The disease is found to be a little more frequent in the male than the female. The great majority of cases seem to occur between the ages of nineteen and thirty-nine, but it may occur at any age. It is found to be more prevalent in the white race than the colored race. The meningitis usually develops within one year of the infection, however, it may occur at any time.

The symptom complex of acute syphilitic meningitis is not new; as a matter of fact it is many years old. Studies concerning the ultimate prognosis, however, are inadequate. Merritt and Moore felt that with treatment the acute symptoms rapidly subside. They felt that the ultimate prognosis is good when the proper follow-up treatment is given; that the prognosis is poor when no treatment or inadequate treatment is given. They found no case in the literature that developed during active arsenical therapy. They felt that the development of meningeal symptoms is an indication that the treatment the patient is receiving is inadequate and that more vigorous arsenical therapy should be given. They felt that parenchymatous neurosyphilis may develop as a sequel to acute syphilitic meningitis.

The symptomatology has been grouped by several observers as to the site of the most marked involvement of the meninges. Stokes has listed symptomatology both of the convexity and of the basilar portions of the brain. Merritt and Moore have added to these types acute syphilitic hydrocephalus. They felt that the development of the acute hydrocephalus is due to a disturbance in the cerebrospinal fluid circulation, that it is probable that in these cases the chief involvement of the meninges is in the posterior fossa obstructing the flow of the fluid from the basal cisterna.

The diagnosis of acute syphilitic meningitis cannot be accurately made without the serological tests. The blood Wassermann is positive in about 85 or 90 per cent of the cases. The Wassermann is positive in 100 per cent with the cerebrospinal fluid. The cerebrospinal fluid is under pressure in practically every case. The cell count is usually raised and may go as high as 1,500 cells per cubic millimeter. The fluid may be clear, but is usually turbid. The history of syphilis combined with positive findings and meningitis, make the diagnosis a certainty. Acute encephalitis, purulent meningitis, and meningeal irritations of different types warrant consideration. In the presence of choked disc, brain tumor, brain abscess, brain hemorrhage, sinus thrombosis and lead encephalopathy should be considered. Merritt and Moore found differential diagnosis in acute syphilitic meningitis to be between the acute purulent meningitides and the meningitides due to the tubercle bacillus and the pathogenic yeast organisms, particularly the torula group.

CASE REPORT

On May 5, 1936, Mrs. M. M. P., married, white female, age 27, was first seen by me in my office with the complaint of **headache, vomiting**, and **blindness.** Prior to this time she had severe headaches and nervous spells for about two months or more. The headaches grew progressively worse, and vomiting occurred, of a projectile nature. No previous history of syphilis was obtained.

Her vision began rapidly to fail and at times she had double vision. On examination her vision was so bad in each eye that she said she could not see the screen. Her condition was too severe for accuracy. No visual field determination was attempted on the same basis. There was marked choking of both discs. There was paresis of the external rectus of the left eye. There were no other positive neurological signs.

---

*Read before the Section on Hygiene and Public Health at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 12, 1937.

I sent this woman immediately to Dr. Semmes, the brain surgeon in Memphis. Ventricular punctures were done and the fluid obtained was positive for syphilis, and had a cell count of 640, and 1,660 red cells. The blood Wassermann was also positive. A sub-temporal decompression on the left side was done to save hemivision. Both the above procedures were done under local anesthesia. At this time she was given mixed treatment and told to continue same for about two weeks. Her headaches immediately stopped, and her vision began slowly to improve.

Five weeks later, she had no headaches, no diplopia, and her vision was O. D. 20/40-1, O.S. 20 30-2. Her visiual fields were markedly contracted. Both blind spots were slightly enlarged. The choking of the discs was receding. She had had during the past several days about five injections of bismuth.

At the present time, one year later, her vision is normal. She has no headaches. On examination the ocular fundi are normal and there is no sign of any neuroretinitis. There are no intra-ocular or extra-ocular muscle palsies. The visual fields are normal. The blind spots are still a little large. On further examination both the blood and spinal fluid Wassermann tests are positive and she has a secondary syphilitic skin rash. Whether this secondary manifestation is to be interpreted as a re-infection or a delayed secondary stage due to therapy we are unable to say. She had no treatment since November 1936. We are told that she has exposed herself recently to possible re-infection. We have recommended further and more energetic treatment.

There are several features concerning this case which are significant. She developed the disease without having had any previous antiluetic therapy. The disease occurred without any previous knowledge to her that she had syphilis.

A very interesting article by Hugh Morgan, of Vanderbilt, back in 1928, stressed the point that many early syphilitics have their meningeal syphilis precipitated because of inadequate therapy. Ralph Drake in 1933 felt that previous insufficient antisyphilitic therapy, particularly arsphenamine, was not necessary for the development of acute syphilitic meningitis. In their paper, Merritt and Moore in 1935, felt that because of the occurrence of meningitis in several of their cases that had not received previous treatment, the precipitation of meningitis is not related to arsenical therapy.

This patient had bilateral choked discs to the extent of blindness. I felt immediately that this case was one of brain tumor. Since we have no brain surgeon in our town or state, I rushed her by next train to Semmes in Memphis. A paper by Glass and Garvey, of Ann Arbor back in 1928 reports seven cases with prominent severe fundus lesions. A quotation from their paper is as follows: "The occurrence of choked discs in cases of acute luetic meningitis or meningo-encephalitis is of considerable clinical importance, more particularly so from the standpoint of differential diagnosis. The symptomatology and signs of this type of neurosyphilis may closely stimulate the clinical picture of numerous other affections of the nervous system presenting alterations in the ocular fundi, notably brain tumor with rapidly developing symptoms, abscess, encephalitis, tuberculous meningitis, lead encephalopathy, and intracranial hemorrhages. In all these conditions are found headaches, vomiting, dizziness, convulsive seizures, disturbances of consciousness, cranial nerve palsies, and other signs of general or focal brain disease. Choked discs when added to a symptom group of this kind easily confuses the diagnosis. We have found this to be particularly true in acute luetic meningitis and meningo-encephalitis, probably because of their relative infrequency and the usual absence of luetic history. It had been our experience in these cases that the disclosure of a choked disc upon the initial examination is more likely to suggest some disease of the brain other than syphilis, usually tumor. Three of our 7 cases were admitted to the hospital for operation, presumably for cerebral neoplasm."

We have every reason to consider this as a case of cerebral involvement in early syphilis. A quotation from Drake's paper is as follows: "It is not know that the central nervous system is involved in a large percentage of patients in the early stage of syphilis. Such involvement may be expressed clinically as symptoms of acute meningitis and meningo-encephalitis in which papilledema may be a conspicious symptom. Early neurosyphilis is, therefore, of interest to the ophthalmologist."

On examination of this patient there were no disturbances of pupillary reactions. This was in agreement with Merritt and Moore in their substantiation of the conception that the abnormalities in the pupillary reactions in neurosyphilis are of slow evolution. They found in their 80 cases only five with Argyll Robertson pupils and these were in cases which developed their meningitis late, six, sixteen, and twenty years after the initial infection. Two cases developed Argyll Robertson pupils while under observation six and fourteen years after the acute meningitis. Three of their five cases who had Argyll Robertson pupils at the time of the meningitis, or in whom the condition developed later, subsequently exhibited evidence of parenchymatous neurosyphilis. This they felt was interesting and in favor of the idea that Argyll Robertson pupil is due to a parenchymatous lesion rather than to a meningeal lesion.

It is generally conceded now that sub-temporal decompressions are not necessary. Generally it is thought that frequent spinal punctures are adequate. However, in such a drastic and dramatic case as the present one, a sub-temporal decompression seems eminently warranted. Gardner of the Cleveland Clinic informs me that his predecessor, Locke, before his death wrote a paper advising sub-temporal decompression in this condition. Gardner himself has not thought it advisable and has never carried it out. He reports about six cases during the past eight years. He considers frequent spinal punctures adequate. Craig and Adson of the Mayo Clinic state that they do not advise sub-temporal decompression in these cases ordinarily.

The results are, of course, very interesting. This type of case is first seen by the practitioner, and he is thoroughly equipped to diagnose and treat such conditions. The ophthalmologist and neurologist are the consultants. The expense of the treatment, the lack of many patients to be treated adequately, has been a big factor, but this does not relieve the profession of its obligation concerning the matter. It must be stressed that spinal fluid examinations are absolutely necessary in this and similar cases. The blood Wassermann might be found negative. The eye signs here, as in many other intracranial lesions, are interesting and instructive. Generally, eye examinations may reveal findings, such as primary or secondary optic atrophy, choked disc, involvement of the maculopapular fibres with central vision defects, visual field defects, paralyses of the intra- and extra-ocular muscles, or combinations of all these. Frequently the ophthalmologist and the neuro-surgeon are called on for assistance in interpreting such findings.

DISCUSSION

DR. A. G. WILDE (Jackson): The clinical diagnosis of acute syphilitic meningitis is quite rare. However, it has been shown that in approximately 70 per cent of cases of syphilis there is evidence of meningeal irritation and probable actual invasion during the secondary stages. Although this infection may be slight and transitory, it probably accounts for the headaches complained of during that time. Such involvement may not be recognized clinically, and is shown only by an increased cell count, or positive reaction of the spinal fluid.

If the conception of a special neurotrophic strain of spirochetes is correct, meningeal involvement would be more prevalent and severe in this type of infection than in the dermatrophic variety. Cases arising from the same source of infection are apt to be similar in their manifestations.

When one reaches a luetic stage sufficient to show an actual meningitis, his condition, while highly vital to himself, is frequently not highly infectious, and hence he may not be a public health problem. Whether or not such involvement is called "acute" or "chronic" depends on the line of demarcation chosen between the two, and, of course, that is entirely arbitrary.

We know by the time the secondary stage has developed, the body has been subjected to a general barrage of organisms, and the meninges have not escaped. However, symptoms of their involvement may not be recognizable externally. When such occurs, the basilar type is usually found, and as the interpeduncular space is the point of predilection of luetic processes, early involvement of the third nerve is quite characteristic. A sudden ptosis of one lid is practically always luetic in origin.

When the convexity of the brain receives the brunt of the involvement, there are wide spread disturbance of the motor and sensory functions. Epilepsy developing in a previously healthy adult is quite liable to be syphilitic. A diagnosis of this type is usually not difficult on account of the associated signs and symptoms. Of course, the patient may stoutly and perhaps conscientiously deny infection, as was done in the case described.

We must remember that the cranial nerves are actual prolongations of the brain substance. When there has been an actual destrustion of any cranial nerve, the retina or the brain itself, no regeneration occurs by either time or treatment. It is true that the function of the part involved may be interrupted by the pressure of exudates, and again become active when the mechanical interference has been removed. The permanent residue of the disturbance shows that a portion of the brain or its prolongations have been destroyed and replaced by scar tissue, and, hence, no further improvement is possible. As medication will only bring improvement to this point, intensive treatment is not to be continued indefinitely.

REFERENCES

1. Stokes, John H.: Modern Clinical Syphilology, Phila., W. B. Saunders, 1928.
2. Drake, Ralph L.: Ocular Syphilis, Arch. of Ophth. 9:234, 1933
3. Merritt, H. Huston and Moore, Merrill: Acute Syphilitic Meningitis, Medicine, 14:1 (Feb) 1935.
4. Glass, R. L., and Garvey, P. H.: Papilledema in Aoute Meningitis, and Meningoencephalitis, Am. J. Ophth. 11:377 (May) 1928.
5. Morgan, Hugh J: Induced Syphilitic Meningitis (Neurorecurrence) South. Med. J. 12:699—704 (Aug.) 1929.
6. Moore, J. E.: The Relation of Neurorecurrence to Late Syphilis, a Clinical Study of Eighty-one Cases, Arch. Neurol. and Psychiat. 21:117, 1929.

MISSISSIPPI STATE MEDICAL ASSOCIATION

Organized 1867

OFFICERS

President	W. L. Little, M.D., Wesson
President-Elect	Joseph E. Green, M.D., Laurel
Vice-Presidents	F. S. Hill, M.D., Grenada Lawrence W. Long, M.D., Jackson R. F. Ratcliff, M.D., Lucedale
Historian	Leon S. Lippincott, M.D., Vicksburg
Speaker	J. P. Wall, M.D., Jackson
Secretary	T. M. Dye, M.D., Clarksdale
Treasurer	E. LeRoy Wilkins, M.D., Clarksdale

COUNCIL

First District	J. W. Lucas, M.D., Moorhead
Second District	L. L. Minor, M.D., Rt. 4, Memphis, Tenn.
Third District	R. B. Caldwell, M.D., Baldwyn
Fourth District	T. J. Brown, M.D., Grenada
Fifth District	W. H. Watson, M.D., Brandon
Sixth District	H. Lowry Rush, M.D., Meridian
Seventh District	J. Gould Gardner, M.D., Columbia
Eighth District	W. H. Frizell, M.D., Brookhaven
Ninth District	D. J. Williams, M.D.. Gulfport

COMMITTEES

Constitution and By-Laws: W. H. Frizell, M.D., Brookhaven; J. Rice Williams, M.D., Houston; W. W. Crawford, M.D., Hattiesburg.

Budget and Finance: J. B. Howell, M.D., Canton; B. S. Guyton, M.D., Oxford; D. C. Montgomery, M.D., Greenville.

Public Policy and Legislation: W. H. Anderson, M.D., Booneville; F. J. Underwood, M.D., Jackson; Henry Boswell, M.D., Sanatorium.

Publication: Leon S. Lippincott, M.D., Vicksburg; D. W. Jones, M.D., Jackson; G. S. Bryan, M.D., Amory.

Program: T. M. Dye, M.D., Clarksdale.

Isolation Hospitals: H. F. Garrison, M.D., Jackson; J. Gould Gardner, M.D., Columbia; H. C. Ricks, M.D., Jackson; W. H. Anderson, M.D., Booneville; John Darrington, M.D., Yazoo City.

CHAIRMAN OF SECTIONS

Medicine	L. J Clark, M.D., Vicksburg
Surgery	J. Gould Gardner, M.D., Columbia
Hygiene and Public Health	H. C. Ricks, M.D., Jackson
Eye, Ear, Nose and Throat	Van Dye Hagaman, Jackson

ADVISORY TO WOMAN'S AUXILIARY

W. L. Little, M.D.,	Wesson	Henry Boswell, M.D.,	Sanatorium
Joseph E. Green, M.D.,	Laurel	T. M. Dye, M.D.,	Clarksdale
T. J. Brown, M.D.,	Grenada		

Mississippi State Medical Association

Leon S. Lippincott, M.D., ...Editor
D. W. Jones, M.D., ...Associate Editor
G. S. Bryan, M.D., ...Associate Editor

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

EDITORIALS

CHRISTMAS BELLS

I heard the bells on Christmas Day
Their old, familiar carols play,
And wild and sweet
The words repeat
Of peace on earth, good-will to men!
—Longfellow.

Merry Christmas

LET US THINK

At this beautiful Christmas season when kindly thoughts are perhaps most likely to be in our minds, should we not perhaps consider our fellow members of the Mississippi State Medical Association? Our Association is made up of men like ourselves—with the same thoughts for the good of our profession, for our Association, and, especially for the good of the people of Mississippi who look to us for sympathetic care and guidance in things that concern their dearest possession—health. We are all working for the same purpose. Why should there be misunderstandings? Why petty jealousies? Why political combines in a great and noble profession? It has been said "When doctors agree, science weeps." We can honestly disagree if we have justifiable reasons, but it is only reasonable and right to consider the other fellow's point of view—to give him a chance to present his side. Should preconcieved ideas or snap judgment, because we may have expressed it publicly, prevent us from changing our minds when we are shown to be wrong?

Almost everything that we knew and supported twenty years ago has changed. Perhaps medicine is changing even faster than other professions and activities. Everything new is not bad. Probably none of us would honestly wish to go back to "the good old days" when we consider what we can do for our patients now as compared with even ten years ago.

Should we not all decide now at this season of good will to be better doctors, to consider our fellow practitioners as we would have them consider us, to play the game as men in our medical societies and state association—to wish for every one of our fellows a very merry Christmas—and mean it?

"COUNCIL ACCEPTED"

Recent reports of more than sixty deaths attributed to the administration of a proprietary, unstandardized, semisecret remedy should very forcibly bring to the attention of physicians, pharmacists and the public in general the importance of the use of only drugs and medicines which have been proved by experimentation and experience to be safe.

The Council on Pharmacy and Chemistry of the American Medical Association, of which all members of the Mississippi State Medical Asociation are members, for many years has been making extensive and painstaking investigations of medicinal preparations proposed for use or sale. Results are published in full in the Journal of the American Medical Association and a publication, "New and Non-Official Remedies," lists those drugs and preparations which have been found to be safe and apparently of value. Furthermore when such a preparation is later shown not to have proved by longer experience to meet expectations, it is dropped from the approved list.

Thus "Council Accepted" has a real meaning and standing. Not only physicians, but druggists and anyone interested can always obtain from the American Medical Association authoritative information on all medicinal preparations that are considered safe and useful by the Council.

It is difficult to understand why a manufacturer of a preparation which he honestly believes is good should hesitate to submit it to the Council for evaluation. If the preparation is potentially dangerous, he certainly could not conscientiously offer it for sale. If it is of real value, recognition by the Council and consequent publicity can only give him protection and aid his sales.

It is also difficult to understand why a physician trained in medical school to use official drugs, should fall into the practice of prescribing proprietary preparations, especially when he knows the increased cost to his patients. Of course, it may take a few years for a new preparation to become official but in the meantime, if it is good, it will be recognized as "non-official" by the Council. Has the art of prescription writing, of which our fathers were so proud, become a lost art?

An editorial in the Journal of the American Medical Association of Nov. 6, quotes an excerpt from a lecture "Chauvinism in Medicine" given before the Canadian Medical Association, Montreal, 1902, and from the book "Aequanimitas and Other Addresses," by William Osler, Philadelphia, P. Blakiston's Son & Co., 1906, p. 300, which is just as pertinent now as thirty-five years ago:

"To modern pharmacy we owe much and to pharmaceutical methods we shall owe much in the future, but the (medical) profession has no more insidious foe than the large borderland pharmaceutical houses. No longer an honored messmate, pharmacy in this form threatens to become a huge parasite, eating the vitals of the body medical. We all know only too well the bastard literature which floods the mail, every page of which illustrates the truth of the axiom. The greater the ignorance the greater the dogmatism. Much of it is advertisements of nostrums foisted on the profession by men who trade on the innocent credulity of the regular physician, quite as much as any quack preys on the gullible public. Even the most respectable houses are not free from this sin of ignorance and of ignorant dogmatism in their literature. A still more dangerous enemy to the mental virility of the general practitioner is the "drummer" of the drug house."

For years there have been attempts to secure protection through more efficient food and drug legislation. Here again it would seem that if a manufacturer or dealer or distributor had the good of the public in his heart, as much of the advertising might lead one to think, he would welcome and support laws that would give his product government protection. It is a sad commentary on someone or something that thus far enough pressure has been brought to bear to prevent the desired and needed legilation.

It is to be hoped that with the experiences of this year fresh in mind, the doctors and the reliable pharmaceutical companies of which there are many, will put forth every effort at the next meetings of our legislative bodies to see to it that the public is protected by just and efficient laws.

Meanwhile let's live up to our training and traditions and prove that we have not forgotten how to write prescriptions for official preparations or those which are "Council Accepted."

CHARITY SURGERY

As some indication of what doctors of Mississippi are contributing to the program for the care of the indigent of the state, records of the State Hospital Commission show that in the first year under the new law, from July 1, 1936 to June 30, 1937, 5,079 surgical procedures were performed on 3,439 patients. The law provides that patients receiving care in approved hospitals at the expense of the state shall be administered to by doctors gratis. While the actual value of the operations performed at usual fees has not been worked out, it is probably not under $400,000. The value of the medical service furnished would amount to as much or more. Hospital care is given at a per diem cost considerably less than the average per diem costs in the hospitals which are members of the Mississippi State Hospital Association. In others words, for $500,000 for the biennium, the state will receive in addition to actual hospital care at a figure below cost, medical services of a value of a million and a half dollars.

The state should be appreciative of its doctors.

Some figures of surgical procedures may be of interest:

Intestines	103
Herniae	138
Liver and Bile Passages	49
Mouth, Lips, Salivary Glands, Teeth, Pharynx	23
Tonsils and Adenoids	761
Esophagus	2
Peritoneum and Omentum	72
Rectum and Anus	92
Stomach	15
Vermiform Appendix	1,207
Cardio-Vascular System	10
Connective Tissue	1
Thyroid Gland	30
Lymph Nodes	9
Tendons and Tendon Sheaths	4
Nervous System	18
Osseous System	295
Joints	6
Female Genital Organs	1,576
Male Genital Organs	92
Nasal Cavity and Accessory Sinuses	13
Larynx, Trachea, Lungs, Pleura	107
Sense Organs	65
Tegumentary System	89
Urinary System	52
Injuries	90
Neoplasms	2
Miscellaneous Conditions	93
Amputations	65

YOUR MEDICAL SOCIETY

The County Medical Society helps to give a doctor a new outlook—makes him regard his profession less as an instrument for private gain and more as the principal service he is called upon to render to his community.

Medicine brings monetary riches to few. No man should enter the medical profession for what he can get out of it in dollars and cents.

Your medical society admits you as a member for what you can put into it. You are expected to advance the principles of the medical profession.

What your society offers you in return is a by no means easy road of moral endeavor and of real, practical, personal activity, but therewith it also offers to you that help and increased happiness of fellowship in service.

RE-ORGANIZATION OF MEDICAL PRACTICE

A committee representing 430 medical men of the country have recently presented to medical organizations principles and proposals for reorganizing medical practice in accord with changing social and economic conditions. The committee has as its chairman, Dr. Russell L. Cecil, associate attending physician, New York Hospital; Dr. Milton C. Winternitz, professor of pathology and former dean of the Yale University School of Medicine, and Dr. Hugh Cabot, consulting surgeon, Mayo Clinic, are vice-chairmen; and Dr. John P. Peters, professor of medicine, Yale University School of Medicine, is secretary.

The committee believes that the medical profession, although only one of several groups vitally concerned with medical care, should take the lead in proposed changes and should cooperate with other interested groups. Medicine must be ready to change and not remain static if "medical men are to act as the expert advisors of those who convert public opinion into action."

Principles are enumerated as follows: (1) that the health of the people is a direct concern of the government; (2) that a national public health policy directed toward all groups of the population should be formulated; (3) that the problem of economic need and the problem of providing adequate medical care are not identical and may require different approaches for their solution; (4) that in the provision of adequate medical care for the population four agencies are concerned: voluntary agencies, local, state and federal governments.

The proposals of the committee are: (1) that the first necessary step toward the realization of the principles is to minimize the risk of illness by prevention; (2) that an immediate problem is provision of adequate medical care for the medically indigent, the cost to be met from public funds (local and / or state and / or federal); (3) that public funds should be made available for the support of medical education and for studies, investigations and procedures for raising the standards of medical practice; if this is not provided for, the provision of adequate medical care may prove impossible; (4) that public funds should be available for medical research as essential for high standards of practice in both preventive and curative medicine; (5) that public funds should be made available to hospitals that render service to the medically indigent and for laboratory and diagnostic and consultative services; (6) that in allocation of public funds existing private institutions should be utilized to the largest possible extent and that they may receive support so long as their service is in consonance with the above principles; (7) that public health services, federal, state and local, should be extended by evolutionary process; (8) that investigation and planning of the measures proposed and their ultimate direction should be assigned to experts; (9) that the adequate administration and supervision of the health functions of the government, as implied in the above proposals, necessitates in our opinion a functional consolidation of all federal health and medical activities, preferably under a separate department.

All of the above is important. Your medical society will probably be asked to pass on the proposals. Medical practice is changing and it is going to change more. Your best thought is needed now.

HOSPITAL CARE INSURANCE

"Hospital care insurance in its present form will probably reach a total of 200 plans and 10,000,000 subscribers by the year 1942."

"The following developments probably will appear within the next few years: (1) systematic and complete supervision by departments of public welfare and hospital insurance in each state; (2) cooperation between departments of public welfare and hospital insurance associations for the care of people of low income groups; (3) reciprocity between well-established and carefully organized hospital service associations; (4) recognition of the family as the economic unit essential public service; (5) protection for all types of acute illnesses (including maternity service as a public health measure); recognition of the family as the conomic unit for enrollment and subscription; (7) development of qualified executives for hospital service plans."—Basil C. MacLean, M.D., Strong Memorial Hospital, Rochester, N. Y.

PROPOSED STATE LEGISLATION

At the last annual meeting of the Mississippi State Hospital Association, Dr. J. Gould Gardner, Columbia, then chairman of the Committee on Legislation, proposed the following bills for presentation at the next meeting of the Legislature:

Hospital Lien Low.—Uniform state act concerning liens for money due to hospitals for services rendered for the relief and cure of injuries caused by the fault or neglect of other persons, on claims and rights of action accruing to such injured persons by reason of such injuries.

Comment: The passage of a sound lien law at the next regular session of the Mississippi Legislature would, no doubt, be the most just, the most beneficial piece of legislation obtainable. Many instances could be cited to show the benefits of such a law to the hospitals. For example, suppose a bus filled with occupants has an accident and several are injured and taken to the nearest hospital. The owner of the bus is insured and settlements are made with the injured. The patients may refuse to pay for their hospitalization. The bus owner has a signed release from each patient absolving him from all further liability. The passage of a just lien law is absolutely vital to the protection of the hospitals of Mississippi.

Responsibility and Driver's License Laws.—These laws have been enacted in a majority of states and are designed to bar reckless drivers, incompetent drivers, those under a certain age, those with poor vision, and those with certain physical defects, drunks, etc.; also to take old and dangerous cars off from the highways. The laws are to furnish public protection on the highways. The passage of these laws should be supported as a protection to innocent citizens—men, women, and children of our state —and, also, as a help in diminishing the number of highway accident victims brought to the hospitals and the heavy losses sustained by the hospitals in the care of these patients.

Workmen's Compensation Law.—A workmen's compensation law is coming. The records show that in some states the provisions of the compensation laws are inadequate; in other states, they are entirely inadequate. It is easier and better to pass the bill in the proper form than to try to amend it later. Mississippi stands now as one of the two states in the Union without a workmen's compensation law.

A just workmen's compensation law will provide a greater security to industry. A more just and fair treatment would be had by both employer and employee. Labor would receive fair, statutory pay for fair claims. Capital and industry operating in our state would feel secure to remain here. Foreign industries would move in on account of our climate and high type of labor. They are now afraid of our laws, afraid of fixed suits. and of unwarranted judgments on fake suits.

The present committee on legislation consists of Dr. V. B. Philpot, Houston, chairman; Dr. W. Jeff Anderson, Meridian; Dr. E. S. Bramlett, Oxford; Dr. R. B. Caldwell, Baldwyn; Dr. W. W. Diamond, Magee; Dr. J. W. D. Dicks, Natchez; Dr. S. E. Eason, New Albany; Dr. R. J. Field, Centreville; Dr. Chas. LeBaron, Gulfport; Dr. L. W. Long, Jackson; Dr. M. H. McRae, Corinth; Dr. V. B. Martin, Picayune; Dr. J. W. Moody, Charleston; Dr. D. G. Rafferty, Pass Christian; Dr. E. R. Nobles, Rosedale; Dr. Robert W. Smith, Canton; C. F. Theobold, Biloxi; C. C. Whittington, Greenville; Dr. E. LeRoy Wilkins, Clarksdale.

CERTIFICATES IN OPHTHALMOLOGY

Congratulations to three Mississippi doctors for high honors earned!

At the recent meeting of the Academy of Ophthalmology and Otolaryngology in Chicago, Drs. Alston Callahan, Vicksburg, Sam Carruthers, Grenada, and Spencer Wood, Greenville, were examined by the American Board of Ophthamology and were granted certificates.

The honor is the greater inasmuch as the directory of certificate holders before the Chicago meeting contained no mention of Mississippi.

The examinations were given by outstanding ophthalmologists of the country, including Dr. Conrad Berens, of New York, Dr. Judd Beach, of California, Dr. C. J. O'Brien, of Iowa and Dr. E. C. Ellett, of Memphis. The candidates were not only strenuously quizzed in practical therapeutics, but also in anatomic and embryologic relationships. Many external diseases as well as fundal lesions were assigned for diagnosis; eye neoplasms were presented for microscopic diagnosis; lenses to properly correct errors of refraction were checked; and actual operations upon pigs' eyes were required to demonstrate surgical ability.

The certification of these three doctors will raise the standing of ophthalmology in Mississippi.

ATTENDANCE AT MEETINGS

Large numbers of doctors, prominent in their particular fields of endeavor, have long standing records of perfect attendance at meetings of their county medical societies. How do they do it? By regarding a county society meeting as a personal engagement with men they want to know better.

Why do they do it? Because there is no such thing as absent treatment in such personal things as fellowship, friendship and inspiration to do better work. They realize that absence is negative and attendance is positive.

The only way to secure the benefits of a medical meeting is to be there. There is nothing sentimental about it—it is just practical.

WITHOUT A DISSENTING VOTE

The Bulletin of the Hospital Association of Pennsylvania of October, 1937, reports that ization in Philadelphia became a will-o'-the-wisp of rumors when the administrators, trus-the oft-predicted opposition to group hospital-tees and staff doctors representing twenty-seven member hospitals met as the Hospital Council of Philadelphia on October 1st.

The plan was unanimously approved and application for charter authorized. An opportunity was given to anyone desiring to be recorded as not voting, but no one responded.

FOLLOW-UP REPLIES

Do you consider yourself cured of the trouble that brought you to the hospital? Answer: "Yes."

If not cured, do you consider yourself improved? Answer: "No."

Do you suffer from any of the same symptoms as when here? Answer: "Yes."

Have you gained weight? Answer: "Yes." How much? Answer: "10 pounds."

Do you suffer from any abdominal pain? Answer: "Yes."

If so, where is pain located? Answer: "All body."

Do you still menstruate? Answer: "No." Is it at regular intervals? Answer: "No."

Is there any pain associated with menstruation? Answer: "Yes."

Do you have leukorrhea or vaginal discharge? Answer: "Yes." If so, what is its color? Answer: "Light." How much? Answer: "Just a little."

Is there any pain or pulling sensation in region of incision scar? Answer: "Yes."

Are you constipated? Answer: "No."

* * * * * * *

Do you consider yourself cured of the trouble that brought you to the hospital? Answer: "No."

If not cured, do you consider yourself improved? Answer: "yes sir, Gread Eal."

Do you suffer from any of the same symptoms as when here? Answer: "No."

Have you gained weight? Answer: "No." Lost weight? No answer. How much? "30 pounds."

Do you suffer from any abdominal pain? Answer: "Yassir."

If so, where is pain located? Answer: "In The Same Side Symptoms."

Other pains? "In the back." Where located? Answer: "Across my Lines."

Do you still menstruate? Answer: "No." Is it at regular intervals? Answer: "No."

Is there any pain associated with menstruation? Answer: "No."

Do you have leukorrhea or vaginal discharge? Answer: "No." If so, what is its color? Answer: "Whites." How much? Answer: "Just a little.

Is there any pain or pulling sensation in region of incision scar? Answer: "yassir."

Are you constipated? Answer: "yassir."

Further Information as to Present Condition. Answer: "no i keep fever in my Symptoms for about 3 week."

Letter accompanying report: "Dear dotcse i am feeling Little Eail to day seem like it is somthing move in my systom it and I still has that dead feeling in my finge thatt they drew the blood from so I will be over there soon and let you look at me soon i remain your poisn."

COPIED

The pretty young nurse was selling poppies. A fast young man stepped up and said, "I'll buy $5.00 worth of poppies if you will promise to nurse me if I ever come to your hospital."

Said Nurse, "All right, it's a promise, and I won't charge you for my services."

With the $5.00 safely in her purse, she turned to walk away when the young man called, "By the way, which hospital will I come to?"

And she sweetly replied, "I am at the maternity hospital over on Sixth Avenue."

* * * * * * * *

I wish I could afford a car like yours.

So do I.

THE TURKEY

How bless'd, how envied, were our life,
Could we but scape the poulterer's knife!
But man, curs'd man, on Turkeys preys,
And Christmas shortens all our days:

Sometimes with oysters we combine,
Sometimes assist the savory chine;
From the low peasant to the Lord,
The Turkey smokes on every board.
Gay—*Fables.*

INTERPRETING MEDICAL LITERATURE

STAFF OF REVIEW

Pediatrics.—Harvey F. Garrison, Jackson.

Internal Medicine.—Laurance J. Clark, Vicksburg.

Obstetrics and Gynecology.—Joe P. Evans, Gulfport.

Public Health.—Felix J. Underwood, Jackson.

Tuberculosis.—Henry Boswell, Sanatorium.

Eye, Ear, Nose and Throat.—Alston Callahan, Vicksburg.

Radiology.—J. A. Beals, Greenville.

Orthopedics.—T. H. Blake, Jackson.

Urology.—Temple Ainsworth, Jackson.

Pathology and Clinical Pathology.—Leon S. Lippincott, Vicksburg.

Comments and discussions are invited.

PEDIATRICS

Harvey F. Garrison, Jackson

Thrombocytopenic Purpura Hemorrhagica.—Ainsworth, M. L., Edelman, S. D., and Fried, R. I.: J. Ped. 11 (Oct.) 1937.

The authors present two cases of thrombocytopenic purpura hemorrhagica treated by administration of parathyroid hormone and calcium gluconate. Recovery with normal platelet count was obtained.

One case was in a three months old infant and was probably a primary thrombocytopenic purpura. The other was in a patient four years old and occurred three weeks following scarlet fever. It was probably a secondary thrombocytopenic purpura.

The only basis for this therapy is that perhaps the parathyroid hormone makes the calcium more readily available for the clotting cycle. The use of blood transfusions, coagulants, high protein diet, liver therapy, high calcium and viosterol, intravenous ascorbic acid and the use of snake venom are mentioned. Splenectomy in selected cases is of value.

Acute Naptha Poisoning.—Price, J. P., and Harrison, Frank: J. Ped. 11 (Oct.) 1937.

The authors present a case of naptha poisoning in a child of 13 months. This was produced by drinking a liquid wax which contained a solvent of petroleum naptha.

The symptoms and treatment are similar to those in cases of kerosene and gasoline poisoning.

The Treatment of Intussusception.—Hipsley, P. L. (From the Royal Alexandra Hospital for Children, Sydney, Australia).

The treatment of intussusception by injection with normal saline is proposed by the author. He gives the results of treatment in 142 consecutive cases of intussusception—92 male and 50 female. The proposed method of treatment as given by the author and the results are given below.

TECHNIQUE OF METHOD OF HYDROSTATIC PRESSURE

Normal saline solution is used for the injection. The quantity varies with the age of the child, but it is the pressure used, not the quantity of solution, which is the important factor. The pressure of a column of saline solution three feet six inches high is used. I believe the bowel is liable to rupture from a pressure of five feet, so that there is a good margin of safety. A general anesthetic is administered and the treatment is carried out in a room adjoining the operating theatre and is not done on the operating table. Both patient and surgeon are prepared as for an operation; so that beyond changing gloves, no time is lost if an operation becomes necessary. An ordinary douche may be used, but a glass container where the level of the water can be seen is better. The vessel is suspended so that the height of the column of saline solution is three feet six inches above the table on which the child is lying. A No. 15 soft rubber catheter is inserted a few inches into the rectum, and the buttocks are pinched together around it, so as to prevent any saline solution from escaping. No lubricant is used, as otherwise it is difficult to hold the catheter in the bowel. As the saline solution slowly runs in, one can follow the outline of the distended colon. After about three minutes the catheter is disconnected and the saline solution allowed to escape into a bed pan. The return of this first injection generally clears out most of the blood and mucus and possibly some feces from below the obstruction. The process is repeated twice, giving about three minutes on each occasion. Occasionally I have used a single injection, holding it in the bowel for from eight to ten minutes. After the injection as much of the saline as will come away is allowed to escape, so that the large bowel is left practically empty after the treatment. On several occasions, I have used a thin barium solution instead of saline solution; on such occasions an x-ray film has been taken to demonstrate the presence of the opaque fluid in the small bowel.

Summary of results of treatment by the

author in 142 consecutive cases of intussusception—92 males and 50 females.

1. Sixty Cases Cured by Hydrostatic Pressure Alone; No Operation Performed:

Ages	Number of Cases
1 to 3 months	1
3 to 6 months	16
6 to 9 months	23
9 to 12 months	12
12 to 18 months	5
Over 2 years	3
Total	69

All recovered.

2. Thirty Cases Treated by Hydrostatic Pressure; Followed by Operation to Verify Reduction:

Ages	Number of Cases
1 to 3 months	1
3 to 6 months	10
6 to 9 months	9
9 to 12 months	6
12 to 18 months	2
Over 2 years	2
Total	30

29 recovered; 1 died.

3. Operation Performed Because of Inability to Accomplish Reduction by Hydrostatic Pressure:

Ages	of Cases Number
3 to 6 months	10
6 to 9 months	15
9 to 12 months	17
12 to 18 months	4
Over 2 years	6
Total	52

46 recovered; 6 died.

Total deaths in 142 cases 7

Mortality .... 4.9 %

Comment: This is an unusually interesting article on the treatment of intussusception by means of manipulations and saline injections. There is no doubt but that many intussusceptions may be reduced by this means where formerly they would have been operated upon. I have had several similar experiences in the treatment of intussusception by the injection of just plain water, even without an anesthetic. It is felt, however, that an anesthetic will materially aid the procedure of reduction. It seems that the use of barium injections following the injection of saline would do the same work towards the reduction of the intussusception and at the same time would satisfy one that the reduction was complete, since by means of x-ray after the use of the barium solution one could see the barium in the small intestine, and also that the mass and the obstruction was removed. Great caution is advised against the use of too much pressure with the saline solution and also against roughness in handling the mass when attempting reduction by this method.

EYE, EAR, NOSE AND THROAT

Alston Callahan, Vicksburg

Progress in Refraction?—A long unsolved problem to the ophthalmologist, especially to those in medium sized communities, is that of determining the correct lenses to prescribe for children. It is generally accepted that retinoscopy is by far the most reliable method to use, especially in children, and yet, to obtain this satisfactorily, cycloplegia must be secured. The prescribing of atropine sulphate (one per cent) three times daily for three or four days is the most often employed method of obtaining this; but it necessitates instuctions to the parents, delay, occasionally a mild atropine reaction, and, most objectionable of all, especially in the case of children who live thirty or forty or more miles away, a return visit to the doctor. Oftentimes, parents, informed that the visual acuity of their child is normal, pay little attention to the fact that this does not mean that the child does not have some error of refraction, i.e., a masked hyperopio, and do not return for the completion of the examination. Few ophthalmologists give heed to their personal financial loss thereby, but conscientiously are dismayed at the uncorrected error, which may in time bring on other consequences that are undesirable, sometimes irremediable.

When hyosine was first brought out, it was acclaimed as the solution to the dilemma. Indeed, it does play a part in the armamentarium of the ophthalmologist, but it must be used with caution. Not only may it cause a systemic reaction, but, unfortunately, the retinoscopic findings may prove to be in error, either during a later examination, or, the patient may not be relieved of the symptoms.

Benzedrine sulphate, now widely advertised as an aid in controlling the acute coryza, has the pharmacologic action of producing marked dilatation of the pupil from the stimulation of the sympathetic nerves. Judge Beach, of Denver, tried using it synergistically with atropine which paralyzes the parasympathetic and found that the action of each was increased many times when the drugs were used together.

His procedure is as follows: two drops of atropine sulphate (1 per cent) are instilled into the eye, and after 15 minutes, two drops of benzedrine sulphate (1 per cent) are instilled. After one and one-half hours the cycloplegia is complete. He reported at the recent Academy of Ophthalmology meeting a series of cases in which he retinoscoped with the benzedrine-atropine combination, then had them return a month later and retinoscoped them again. His tables showed that there was only a slight difference in the two, and that the atropine alone had a slightly greater cycloplegia. But he pointed out that the great difficulty had been overcome; the child could sit in the waiting room for an hour and a half, and be refracted, and then after three or four days—not like the seven or eight days following atropine—the discomfort from the dilatation of the pupils would cease.

Dr. Beach, deservedly an outstanding member of the Academy, cast some doubt on his own findings, however, by stating that he depended, even in young children, a great deal on "fogging" or relaxing the ciliary body by the application of strong convex lenses. He stated that he routinely dilates the pupils, but that the findings gathered thereby rarely led him to change his proposed prescription.

In the writer's experience, with only a few cases, seen in the past month following the meeting, Dr. Beach's hopes for this method do not seem to be fulfilled. Great dilatation of the pupil is obtained rapidly; that that is of great value in iritis and in other conditions which require rapid dilatation of the pupil can hardly be doubted. Yet, retinoscopic findings are not always constant. Could it be that the sympathetic stimulation, so evident in the iris, has no action on the more important (from the viewpoint of refraction) ciliary muscle?

However, it is impossible for anyone to say—and certainly not a person who has had such a comparative little experience with it—that this method does not hold out a great assistance. Much credit is due to Dr. Beach for his pioneering in this method, and it is to be hoped that this is another step forward in the progress of ophthalmology.

PATHOLOGY AND CLINICAL PATHOLOGY

Leon S. Lippincott, Vicksburg

Does Aspiration Biopsy of Tumors Cause Metastasis?—McLean, J. and Sugiura, K.: J. Lab. and Clin. Med., 22:12 (Sept.) 1937.

Years must elapse before the question of the possibility of bringing about distant metastases by aspiration biopsies can be answered definitely from data collected from clinical cases. Experiments were carried out to secure information now on rats and mice using implants of a rat carcinoma which attains a diameter of 1 cm. in two weeks, with death usually after eight weeks when the diameter of a tumor is about 2.5 cm., and a mouse sarcoma which attains a diameter of about 1 cm. in seven days, with death in about three weeks when the tumor is about 2 cm. diameter.

One-half of the animals of the same strain, age and sex and bearing the same tumor material implants at the same time were aspirated at first on three successive days and then daily for eight or ten successive days. At first three strokes of the aspirating needle were made; then when the tumors had attained a diameter of two to three cm. many more strokes and in some eighty-six tumors the contents of the capsule were literally hashed.

At death the aspirated animals and the controls were examined for metastases. There was no evidence of implantation of the tumor material along the track of the aspirating needle (over 894 separate aspirations on 126 tumors). The capsules of the tumors showed no puncture defects; there were no tumors growing out from the main tumor through the capsules.

Ninety-two animals bearing 184 non-aspirated tumors had twenty proved distant metastatic deposits; sixty-three animals bearing 126 tumors aspirated over 894 times showed eight metastatic deposits.

The authors conclude that moderate or excessive aspiration biopsy procedures performed repeatedly on transplanted rat carcinoma and mouse sarcoma do not increase the percentage of distant metastases nor do they produce any demonstrable damage to the tumor capsule or result in the implantation of tumors along the needle tract.

Comment: It is probable that many doctors have been unduly hesitant to take biopsies, aspirations or otherwise, in suspected malignant disease. With the possible exception of opening the capsule of a bone tumor which is growing under pressure and bulges when cut, it would be difficult to find authentic evidence of metastases brought about by biopsy. When tissues are cut, the flow of blood and other fluids is outward to the cut surface. There probably is no suction inward except in the case of large vessels. It seems certain that the importance of a definite diagnosis in suspected malignant conditions far outweighs any dangers from biopsy procedures.

A COMPARATIVE STUDY OF ORAL AND

SUBCUTANEOUS VACCINATION AGAINST TYPHOID FEVER BASED ON AGGLUTININ TITRATIONS.—Moor, H. D. and Brown, Ida Lucille: J. Lab. and Clin Med., 22:12 (Sept.) 1937.

This report covers a comparative study of oral and subcutaneous administration of typhoid vaccine in 187 human subjects. The subcutaneous method was as usually followed, three doses one week apart, 0.5 cc., 1. cc., 1. cc. Oral vaccine was given as follows: The patient was instructed to report for his vaccine in one hour and fifteen minutes before eating breakfast. A capsule of bile was given, followed fifteen minutes later by a capsule containing ten million heat killed typhoid bacilli mixed with starch. The second and third mornings only the vaccine capsule was given one hour before breakfast.

The average agglutinin titre at the end of the fourth week was 1-604 to 1-496 for subcutaneous method. As it takes only three days to administer the vaccine orally, those vaccinated attained the peak of protection approximately two weeks ahead of the group vaccinated subcutaneously.

Of course, the presence of agglutinin antibodies in blood serum alone does not connote immunity. Also it is a fact that agglutinin antibodies called forth by vaccination or even by having the disease disappear on the average of about six months. On the other hand, immunity after vaccination subcutaneously lasts two to three years. Only time and further experiments can definitely prove whether the immunity after oral vaccination is as effective and lasting as that produced by subcutaneous vaccination. No observed or reported reactions followed the administration of oral vaccine.

THE BENEFICIAL ACTION OF GLYCERIN ON BACTERIUM DYSENTERIAE IN DYSENTERIC STOOLS.—Wu. J. P. and Sia. R. H. P.: Chinese, M. J. Supp., 1936, p. 179.

The viability of B. typhosus in stools is increased by the addition of glycerin. This lead to the use of the same method in handling dysenteric stools for bacteriological examinations. By comparative tests of stools with and without glycerin addition, it is shown that the average prolongation of periods in which positive cultures were obtainable as a result of the addition of the glycerin and saline solution was seven days. The addition of 30 per cent glycerin in 0.6 per cent saline solution to stools to be examined for dysentery bacilli is recommended to increase the chance of obtaining positive cultures.

Comment.—In Mississippi every year many cases of bacillary dysentery are reported probably without bacteriological examinations This is not good for the state. Actually bacillary dysentery appears to be rather rare. One reason for non-examination has been that dysentery bacilli rapidly disappear from the feces. It would be well to use the glycerin-saline solution, not less than two parts of solution to one part of feces when submitting specimens for laboratory examinations.

STATE BOARD OF HEALTH

On October 3, Dr. Felix J. Underwood attended the opening of the North Mississippi Community Hospital in Tupelo. Present were outstanding state and national figures for the dedication of this magnificent hospital built by the City of Tupelo and the Commonwealth Fund.

Dr. Underwood lauded the efforts of the community in making possible better health services for its citizens.

To the meeting of the American Public Health Association in New York, October 4-9, went Dr. Felix J. Underwood, state health officer, Dr. R. N. Whitfield, director of vital statistics, Dr. J. A. Milne, supervisor, field unit, Miss Mary D. Osborne, supervisor of maternal and child health and public health nursing, Mrs. Catherine Mayfield, bacteriologist with the epidemiological unit, and Miss Margaret Meade, nurse investigator with the epidemiological unit.

Dr. Whitfield delivered an address on "The Homicide Situation in the United States" which attracted nation-wide attention.

A luncheon organized by the State Board of Health was held at the Hugh White Industrial Building, State Fair grounds, October 14, celebrating Health and Welfare Day. Representative of the State Medical Association, State Dental Association, State Pharmaceutical Association, and State Board of Health, the meeting was addressed by Dr. J. P. Wall, Jackson, who presided; E. H. Bradshaw, who extended the visitors a welcome from the City of Jackson; Dr. W. L. Little, of Wesson, president of the State Medical Association; Dr. William Wright, dental member, State Board of Health; Dr. S. B. Key, druggist; Dr. Felix J. Underwood, state health officer; and Dr. W. K. Sharp, regional consultant, U. S. Public Health Service, New Orleans, who praised public health administration in Mississippi and its superior record per dollar spent. That the State Board of Health is no political football was cited by Dr. Sharp as an important factor in its procurement of outside aid.

Float of the Board of Health in the Health and Welfare parade represented the sun of public health shining beneficent rays of service, protection, and education on the Commonwealth of Mississippi. Prominent was the slogan, "Public Health is Public Wealth."

In the interest of the Mississippi maternal and child health program for the coming year, Dr. Underwood attended a conference at the Federal Children's Bureau, Washington, D. C,. on October 19.

The State Cancer Committee met in the office of Dr. Underwood on October 26, to plan a campaign against this disease which last year claimed 1278 Mississippians. Formulated was a program of education as part of the national drive against cancer.

On October 27, Dr. Underwood spoke to the Peace Officer's Conference of Mississippi and Tennessee, meeting in Hattiesburg. "The Venereal Diseases" was the subject of the address to sheriffs, policemen and other law enforcing officers.

To the Tri-State Medical Society meeting in Shreveport, October 28, Dr. Underwood spoke on "Public Health and the Venereal Diseases." "The recently enacted Social Security Act of the Federal Government makes possible the rapid development in the United States of a nation-wide program for combating the venereal diseases," Dr. Underwood said, adding, "It is to be hoped that all states will be interested enough to match Federal monies for this purpose and conquer these human killers."

The eleventh Conference of Social Workers met in Jackson, October 28-30, many meetings of which were attended by the personnel of the State Board of Health. Outstanding was the address of Miss Katherine Lenroot, chief of the Federal Children's Bureau, Washington, D. C., who spoke on "The Significance of Child Welfare for Mississippi.

Dr. D. H. Barber, District Engineer, U. S. Geological Survey, Montgomery, Ala., consulted with Dr. George E. Riley, supervisor, malaria conrtol, and Mr. Nelson Rector, sanitary engineer, State Board of Health, on October 23.

Dr. R. H. Onstott of the U. S. Public Health Service, Washington, D. C., is serving as health officer in Holmes County, in the absence of Dr. George W. Mast, who is on a year's fellowship at Johns Hopkins University. Also at Johns Hopkins on a twelve-months' fellowship is Dr. Ray H. Biggs of the State Board of Health.

Mississippi's thirtieth full-time county health unit has been established in Tallahatchie County with headquarters at Charleston. Director of the new unit is Dr. J. P. Ward, of Montgomery and Monroe Counties. Dr. Ward has been practicing in Aberdeen for the past four years. The Tallahatchie staff includes: I. C. Bass, sanitary supervisor; Mrs. Elsie Davis Dement and Miss Ilda Hudnall,, public health nurses; Miss Mary Kathryn Henderson, clerk; and Gertrude Hughes, colored nurse. Dr. Ward has spent a period of observation in Coahoma County, which has health problems similar to those of Tallahatchie County.

The full-time county health department is considered the only effective means of protecting the health of a community, and the establishment of this new unit is regarded as a distinct step forward in Mississippi's public health program.

Dr. C. R. Gillespie, director of Adams County Health Department, and Dr. J. C. McGuire, director of Copiah County Health Department, are taking three months' postgraduate study at Vanderbilt University. Drs. J. A. Milne and A. L. Gray of the State Board of Health are carrying on the duties of Dr. McGuire, while Dr. Andrew Hedmeg of Durant is serving in Adams County in Dr. Gillespie's absence.

On October 5, Dr. H. C. Ricks, director of county health work and epidemiology, visited Quitman where he discussed with the Clarke County board of supervisors the advantages of a full-time county health program.

On October 7, Dr. Ricks addressed the District Federation of Women's Clubs in Itta Bena on the subject, "Venereal Disease Control."

Mrs. Inez Townsend, technician in the state hygienic laboratory, has been on a month's leave studying special laboratory technique. At Mt. Sinai Hospital, Cleveland, Ohio, Mrs. Townsend observed Dr. Benjamin Kline's microscopic flocculation tests for syphilis. She also studied special syphilis technique at Temple University, Philadelphia, Pennsylvania.

Latest and best tuberculosis examining methods have been initiated among factory workers by Dr. J. W. Dugger, director, industrial hygiene and factory inspection. Dr. Dugger has jurisdiction over eighty-four Mississippi factories employing women and children.

Tuberculin tests are first made, and those with positive tuberculin reactions are x-rayed with the portable machine recently added to Dr. Dugger's equipment. Films are read at the Sanatorium by Dr. William D. Hickerson, director, tuberculosis field clinics.

The vital need for this work is shown in the results of the examinations. Of 57 examinations made in the first clinic, there were three positive and two suspicious cases of tuberculosis. Of 157 patients examined in the second clinic, six were positive, three had childhood type tuberculosis, and three were suspicious. Other serious conditions were also revealed by x-ray, including basal pleurisy, enlarged heart, and mediastinal mass.

Reports of examinations are sent to the factory physician, who handles the cases.

During the past two years the registration of births and deaths has been consolidated to the extent that at present only the following counties have local registrars: Coahoma, Hancock, Harrison, Jackson, Sunflower, Warren, Yazoo.

The other seventy-five counties are served by single registrars, except in a few instances where it is necessary to have a second registrar in each county.

Mr. W. G. Weller, of the Tennessee Health Department spent the week of October 3-10 in the state studying methods of field investigation of registration and illegal practitioners handled by Mr. Z. E. Oswalt.

Mr. Gustavo Noguera, sanitary engineer with the National Department of Health, Columbia, South America, is spending several months in the division of sanitary engineering studying its program and methods of work. He is also observing the sanitation measures of various county health departments. Mr. Noguera is a Rockefeller student.

The WJDX radio program during October was as follows: October 2, a dialogue, "Tuberculosis in Childhood," Dr. William D. Hickerson and Miss May Borroughs Hickerson; October 9, a play, "For Busy Women Only," Miss Gladys Eyrich, Miss Ruth Virden, Mrs. Hortense Vaughan, Miss Marcia Gibbs; October 16, "The State's Responsibility for Health," Dr. Felix J. Underwood; October 23, "Syphilis, the Present Day Scourge," Dr. J. P. Wall; October 30, "Off to a Flying Start," Dr. J. A. Milne.

Jackson, Felix J. Underwood,
October 3, 1937. Executive Officer.

DIRECTORY AND CALENDAR OF MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-First Annual Session and Thirty-fifth Annual Session of the House of Delegates, Jackson, April 19, 20, 21.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p. m.

Amite County Medical Society: W. S. Stewart, Oskya, president; D. H. Thornhill, Crosby, secretary. Meets second Thursday, each month with Wilkinson County Medical Society, Field Memorial Hospital, Centerville.

Central Medical Society: L. W. Long, Jackson, president; Gayden Ward, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m. except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. D. House, Sledge, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clarke-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: I. W. Barrett, Clarksdale, prseident; N. C. Knight, Clarksdale, secretary. Meets second Wednesday each month, Clarksdale Hospital, Clarksdale, 1:30 p. m.

Coast Counties Medical Society: E. B. Van Ness, Gulfport, president; D. L. Hollis, Biloxi, secretary. Meets first Wednesday each month, at night.

Delta Medical Society: E. T. White, Greenvile, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

Desoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, Rt. 4, Memphis, secretary. Meets first Monday of January, April, June, October, Hernando, 10 a. m.

East Mississippi Medical Society: T. G. Cleveland, Meridian, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: L. Costley, Meadville, secretary.

Hancock County Medical Society: D. H. Ward, Bay St. Louis, president; A. P. Smith, Bay St. Louis, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: G. C. Jarratt, Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday, each month, Missis- 7 p. m. sippi State Charity Hospital, Vicksburg,

Jackson County Medical Society: W. J. Sutherland, Pascagoula, president; R. G. Lander, Pascagoula, secretary. Meets second Thursday of March, June, September, Pascagoula 7 p. m.

Marshall County Medical Society: C. R.

Senter, Byhalia, president; Herbert Phillips, Holly Springs, secretary. Meets second Thursday, each month, alternating between Byhalia and Holly Springs.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Newton County Medical Society: V. L. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: G. H. Wood, Batesvile, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: L. L. McDougal, Booneville, president; A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September, December. Next meeting Tupelo, Dec. 14.

Pike County Medical Society: J. L. Bauer, McComb, president; Elise Rutledge, McComb, secretary. Meets first Thursday, each month, McComb, 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R. F. D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Stone County Medical Society: Earl W. Green, Wiggins, secretary.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday each month, Senatobia.

Tri-County Medical Society: D. T. Langston, New Hebron, president; R. B. Zeller, Hazlehurst, secretary. Meets March, Copiah-Lincoln Junior College, Wesson; June, Walthal Hotel, Tylertown; September, Riverside Hotel, Monticello; December 14, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president; H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: E. M. Butler, Centervile, secretary. Meets Second Thursday, each month, with Amite County Medical Society, Centerville.

Winona District Medical Society: P. B. Brumby, Lexington, secretary.

MISSISSIPPI STATE HOSPITAL ASSOCIATION

A special meeting of the Mississippi State Hospital Association was held at the Robert E. Lee Hotel, Jackson, Tuesday, Oct. 26.

Dr. H. A. Gamble, Greenville, chairman of the Committee on Fixed Periodic Payments for Hospital Services, made a report for the committee and announced the incorporation of the Hospital Service Corporation of Mississippi to furnish non-profit group hospitalization to the people of the state.

The proposed by-laws of the Corporation were read, discussed and adopted.

All institutional members of the Association are eligible to membership in the Corporation.

The following were elected as members of the Board of rustees of the Corporation: Drs. A. Street, Vicksburg; J. P. Wall, Jackson; Leon S. Lippincott, Vicksburg; H. A. Gamble, Greenville; V. B. Philpot, Houston; A. M. McCarthy, Electric Mills; and J. Gould Gardner, Columbia.

Plans were made for the early offering of contracts for hospital service at approximately 2½ and 3 cents per day.

Dr. V. B. Philpot, Houston, chairman of the Committee on Legislation, presented plans for the next session of the Legislature.

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIEY

The Clarksdale and Six Counties Medical Society was called to order for its seventy-first semi-annual session November 10, at 2 p. m., in the American Legion Hut at Clarksdale. The president being absent, Dr. T. F. Clay, the vice-president from Tallahatchie County, presided. The minutes of the previous meeting and the financial report were presented by the secretary and accepted by the society as read.

The election of officers for 1938 resulted as follows:

President—J. D. House, Sledge; Vice-Presidents—Bolivar County, H. L. Cockerham: Coahoma County—Wm. P. Warfield; Quitman County—J. P. Walker, Lambert; Tallahatchie County—John A. Harris; Tunica County—W. H. Williams; Secretary-Treasurer—N. C. Knight Clarksdale; Board of Censors— W. S. Slaughter, Jonestown, reelected.

There being no further business the scientific program was immediately entered into as follows:

1. Sulphanilamide.—H. L. Cockerham, Gunnison.

2. Appendicitis—What We Can Do About It?—C. F. Varner, Mimphis. Discussed by Brandon, Holder, Austin. Closed by Dr. Varner.

3. Acute Upper Respiratory Infections in Infants and Children—W. P. Warfield, Clarksdale. Discussed by LeRoy Wilkins. Closed by Dr. Warfield.

4. The Economic and Social Side of the Small Town and Country Physician.—Joe.

E. Green, Laurel.

5. Out State Medical Association.—W. L. Little, Wesson.

Recess

The Society was reconvened at 7 p. m. at the Alcazar Hotel, Dr. L. B. Austin acting as president in the absence of both the president and vice-president from Tallhatchie county. Banquet and entertainment were served and then Dr. Charles S. Paddock read a paper entitled "Pyelitis in Pregnancy." Discussed by Varner, Knight, Hall. Closed by Paddock.

A general discussion of the state aid hospital plan was then entered into and a motion was made and seconded and carried that a committee be appointed to contact their respective legislators and attempt to secure an increase in the appropriation at the next session of the legislature.

There being no further business the Society adjourned.

Clarksdale, N. C. Knight,
Nov. 12, 1937. Secretary.

EAST MISSISSIPPI MEDICAL SOCIETY

A meeting of the East Mississippi Medical Society was held at the Lamar Hotel, Meridian, October 14. The program:

3:30 p. m. Heart Failure and Its Management. (Lantern Slide Demonstrations.—Dr. T. K. Lewis, Birmingham, Ala.

4:15 to 5 p. m. Medical Treatment of Pelvic Inflammatory Diseases—Lantern Slide Demonstration of the Elliott Treatment with a Series of Cases.—Dr. Earl Smith, New Orleans, La.

5:00 to 6:00 p. m. Ordinary Skin Diseases That the General Practitioner Should Know. —Dr. Andrew L. Glaze, Birmingham, Ala.

6:15 to 7:15 p. m. Banquet. Lauderdale County Medical Society, host.

7:15 to 8:00 p. m. Essential Proctologic Facts For the General Practitioner of Medicine. (Lantern Slide Demonstrations).—Dr. Cecil D. Gaston, Birmingham, Ala.

Resolutions of sympathy to Drs. Roy Rhymes and J. T. Bailey, members who were sick, were adopted.

Forty members and ten guests attended.

Dr. T. G. Cleveland, Meridian, president, presided.

Meridian, Bob A. Cameron,
Oct. 25, 1937. Secretary.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

A regluar monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, November 9, and after a supper served at 7 p. m., was called to order by the president, Dr. G. C. Jarratt, with eighteen members and two guests present.

Papers and Discussions: General Practice, Dr. W. A. Smith, Panther Burn, chairman.

1. The Use of Theelin in the Menopause, With Report of One Case.—Dr. H. S. Provine, Tallulah, La.

Discussed by Drs. R. A. Street, Jr., G. W. Gaines, L. S. Lippincott, A. Street, and W. P. Robert. Dr. Provine closed.

2. Experience With Hydrophobia Vaccine. —Dr. W. A. Smith, Panther Burn.

The plan of the Mississippi State Hospital Association to present group hospitalization insurance through the Hospital Service Corporation of Mississippi to the people of Mississippi was presented to the Society and unanimously endorsed.

Plans for the annual meeting on December 14 were presented and discussed, and the following committees to have charge of the meeting were appointd:

Banquet: Drs. F. M. Smith, E. H. Jones, and L. S. Lippincott.

Open House: Drs. G. C. Jarratt, G. P. Sanderson, A. Street, J. A. K. Birchett, Jr., W. P. Robert, P. S. Herring, J. H. Dent, H. S. Provine, and A. J. Messina.

Automobiles: Drs. W. E. Johnston, L. J. Clark, C. J. Edwards, N. B. Lewis, B. B. Martin, Jr., Alston Callahan, and J. L. Hall.

Official Guests: Drs. I. C. Knox B. B. Martin, H. H. Johnston, W. C. Pool, R. A. Street, Jr.

Past Presidents Reunion: Drs. S. W. Johnston, W. H. Parsons, W. H. Scudder, H. H. Haralson, G. M. Street.

General Reception: Drs. W. K. Purks, A. K. Barrier, J. A. K. Birchett, M. J. Few, G. W. Gaines, H. B. Goodman, H. S. Goodman, T. W. Huey, D. A. Pettit, W. A. Smith, D. P. Street E. B. Stribling and H. B. Wilson.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY ANNUAL MEETING

Tuesday, December 14, Vicksburg

Program

Open House at Elks Club and Planned Trips to Hospitals and Points of Interest.— 2 to 7 p. m.

Annual Banquet at Hotel Vicksburg.—7 p.m.

Introduction of Past Presidents of the Mississippi State Medical Association and Honor Guests.

Address: Cancer of the Rectum.—Dr. W. D. Haggard, Nashville, Ten.

Address: Our Experiences During a Recent Epidemic of Cerebro-Spinal Meningitis.

—Dr. Groesbeck F. Walsh, Fairfield, Ala.

As for the past several years, a Reunion of the Past Presidents of the Mississippi State Medical Association will be a feature of the meeting and the Officers of the Louisiana State Medical Society and of the Mississippi State Medical Association will be Honor Guests.

All members of the two associations are cordially invited.

TRI-COUNTY MEDICAL SOCIETY

Dr. J. C. McGuire, Copiah County health officer, will return the middle of November after taking special work at Vanderbilt University.

Dr. W. L. Little, Wesson, president Mississippi State Medical Association, has been visiting other societies recently. He spent several days with his son, Dr. A. L. Little, at Oxford.

Several of our members are planning to attend the meeting of the Southern Medical Association in New Orleans.

The doctors all say they are reasonably busy but all deny that they are making any money.

Dr. C. L. Simmons, Hazlehurst, recently visited his son at Greenville.

Hazlehurst, R. B. Zeller
November 2, 1937 Secretary

ANNUAL MEETING TRI-COUNTY MEDICAL SOCIETY

Brookhaven, Dec. 14, 1937, 12:30 Noon.

Program

1. President's Address.—D. T. Langston, New Hebron.
2. Remarks.—W. L. Little, Wesson, President, Mississippi State Medical Association.
3. Remarks.—Jos. Green, Laurel, President-Elect, Mississippi State Medical Association.
4. Recent Advances in Pharmacology. —Clyde Brooks, New Orleans.
5. Diagnosis and Treatment of Pneumonia. —Roy De La Houssaye, New Orleans.

R. B. Zeller, Hazlehurst, Secretary.

DESOTO COUNTY

Medical assembles seem to be the order of the day; they are all good too.

Dr. Leon S. Lippincott, secretary of the Issaquena-Sharkey-Warren Counties Medical Society, is issuing invitations to its annual meeting Tuesday, Dec. 14.

Dr. V. B. Philpot and the Houston Hospital are sponsoring an excellent program which will be put on by the University of Tennessee.

The Clarksdale and Six Counties Medical Society, in its seventy-first semi-annual session, will convene Wednesday, Nov. 10. I hope to look in on this meeting; this is my old society. I joined it the second year after organization. I had the honor of being its president and later the Councilor of the First District.

Dr. J. E. Powell, Charleston, is the president and Dr. N. C. Knight, of Clarksdale, is the secretary, both capable men and society officers.

The North Mississippi Medical Society meeting at and under the supervision of the faculty of the University of Mississippi was a distinct success.

The University offers for the first two years of a medical course a program that is equal to the best. As is known, the college has met all requirements and is entitled to full recognition.

The doctors of this good county and their families are all in good health and active in their "beloved employ."

The Mississippi Doctor is well suited to our people and Dr. Anderson is to be congratulated on its contents and appearance. We read this journal fully and look forward to its coming.

Rt. 4, Memphis, Tenn. L. L. Minor,
Nov. 9, 1937. County Editor.

HINDS COUNTY

Dr. Johnny Rufus Johnson has reopened his office at 422 Standard Life Building, Jackson. His practice is limited to urology and proctology.

HUMPHREYS COUNTY

Dr. and Mrs. Eckford Waddlington, formerly of Belzoni, are the proud parents of a new daughter. They are now located in Flora .

Spencer, son of Dr. and Mrs. G. M. Barnes, Belzoni, is spending this week-end at home. He is a student at "Ole Miss."

Dr. J. W. Jackson spent two days in Aberdeen this month. He was accompanied home by his mother who will spend several weeks visiting him.

Mrs. T. J. Barkley, Isola, visited her sister, Mrs. Gladys Gruez, in Shelby recently.

Those attending the Delta Medical meeting in Greenwood from this county were: Dr. and Mrs. J. C. Bell, Mrs. J. C. Higdon, Mrs. J. R. Jackson, Dr. J. W. Barkley, Dr. and Mrs. J. W. Jackson, Belzoni, and Dr. and Mrs. T. J. Barkley, Isola.

Dr. J. R. Jackson attended the L. S. U.-"Ole Miss" football game in New Orleans November 6.

Belzoni, J. W. Jackson,
Nov. 6, 1937. County Editor

LEFLORE COUNTY

Mr. and Mrs. W. S. Mullens, Metcalf, announce the arrival of a son, born at the Greenwood Leflore Hospital, Oct. 3. Mrs. Mullens is the daughter of Dr. and Mrs. T. M. Riddell, swiftown.

Dr. L. B. Otken visited Tupelo Thursday, Oct. 7.

Dr. and Mrs. W. E. Denman spent two weeks in North Carolina visiting friends.

Dr. Hugo Stern, Heidelberg, Germany, spent a week in Greenwood visiting relatives. He has decided to remain in the United States, going to Akron, Ohio, to do work in a hospital for a year.

Dr. and Mrs. Mayo Flint, Newton, spent Sunday, Oct. 10, with relatives at Schlater.

The Delta Medical Society met in Greenwood, Oct. 13 with a good attendance in spite of the rain, and quite a number remained over at night for the barbecue at the Country Club. Dr. Fred Adams, psychiatrist, of New York, brother of Dr. J. C. Adams, Greenwood, was present and remained in Greenwood for several days visiting. The guest speaker was Dr. Gilbert F. Douglas, Birmingham, Ala. His subject was "Sterility Study Using Rubin Test."

Dr. J. F. Lucas attended the meeting of the Central Association of Obstetricians and Gynecologists at Dallas, Texas, Oct. 14-16.

Dr. and Mrs. C. N. Pate, Hot Springs, Ark., visited relatives in Greenwood, Oct. 17-19.

Drs. J. F. Lucas, G. Y. Gillespie, Jr., and F. M. Sandifer, Jr., attended the meeting of the American College of Surgeons at Chicago Oct. 25-30. Drs. Gillespie and Sandifer then went to Rochester, Minn., to the Mayo Clinic for a week's visit.

Dr. and Mrs. O. P. Myers, Indianola, are receiving congratulations on the arrival of a fine daughter born at the Geenwood Leflore Hospital, Nov. 1.

Greenwood, W. B. Dickens,
Nov. 2, 1937. County Editor.

MONROE COUNTY

Nothing has been reported from Monroe County in several months, but nothing of very serious nature has happened to any of our doctors or their families of recent date. Things are beginning to look as if we ar eto be faced by the age old problem of poor collections again in 1937. This cannot be otherwise with the prevailing prices paid for cotton.

One of our doctors has recently moved, Dr. J. P. Wood, of Aberdeen. Am told that he has gone into publis health and will be director of some county unit.

Monroe county has one of the very best public health units to be found in the state.

Dr. C. H. Love, who has had years of experience, and recently did several months' postgraduate work, is in charge with two full-time nurses, a sanitary inspector and a clerk to assist him. The county assisted by the state department maintains one of the best laboratories in the state. The laboratory is managed by Mrs. Marilu Griffin as technician. She is efficient, capable, courteous and is the daughter of our own Dr. Bryan. The has gone into public health and will be dipartment to the people cannot be measured in monetary value.

I think none of us will question at this period the value of a good health department in the prevention of many kinds of sickness that people took for granted for so long a period of the world's history.

Amory, C. E. Boyd,
Oct. 8, 1937 County Editor.

WASHINGTON COUNTY

Drs. Hirsch, Beck and Eubanks moved into their new clinic building Oct. 1. This arrangement of offices and laboratories on each side of a central corridor, with well lighted comfortable waiting rooms, together with ample parking space for automobiles, and a location near the business district out on a quiet street is an ideal set up fro doctors' offices.

Dr. F. M. Acree, Greenville, is also building an office for himself and his associate, Dr. Jas. L. Salmon. Their office will also be located near the business district but on a quieter street and with ample parking space. The building is a one story structure of 18 rooms, costing about $7,000.00.

At a recent meeting of the physicians of Washington County it was decided that the physicians should cooperate with the local Red Cross and the State Board of Health in the conduct of a venereal clinic for indigent persons. No patients will be accepted for treatment that are not referred by a physician and their indigent state certified to by the Red Cross or some other welfare agency. The clinic has already made a small start, taking over a number of patients who were already receiving free medication from the Red Cross. The clinic at present is conducted by Dr. Charles Berry and is held once a week at the Colored King's Daughters Hospital. The project is planned for a period of ten months and is considered at present in the light of an experiment to determine what are the needs and what can be done in this community towards the control and cure of venereal disease among the indigent.

Dr. Paul Gamble, Greenville, has just returned from the Chicago meeting of the American College of Surgeons held October 25 to 29.

Friends of Dr. L. C. Davis will be glad to learn that he has recovered from a prolonged illness which necessitated more than one operation. He has returned to his practice and reports himself feeling about as well as normal.

Greenville, J. A. Beals
Nov. 5, 1937 County Editor

HOSPITALS

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION, Ninth Annual Session, Jackson, April 18, 1938.

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary: First Friday, each month, 6:00 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital: Third Wednesday, each month, 7:30 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12:00 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p. m.

George C. Hixon Memorial Hospital: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium: Third Thursday, each month, 8:00 p. m.

Greenwood Leflore Hospital: First Thursday, each month, 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital: Second Thursday, each month, 7:00 p. m.

Houston Hospital: Fourth Friday, each month, 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p. m.

Jackson Infirmary: Last Tuesday, each month except three summmer months, 7:00 p. m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 8:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.

McGee General Hospital: Twenty-fifth each month, 6:00 p. m.

Mayes Hospital: First Monday, each month, 2:30 p. m.

McComb City Hospital: First Tuesday, each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Hospital: Second Thursday, each month.

Northeast Mississippi Hospital: First Monday, each month, 7:00 p. m.

Oktibbeha Hospital: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veterans' Hospital, Gulfport: Every Monday, Tuesday, Wednesday, and Thursday, 10:45 p. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth, or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

GREENWOOD LEFLORE HOSPITAL STAFF MEETING

The regular staff meeting of the Greenwood Leflore Hospital was held Oct. 7 at 6:30 p. m., with supper served by the nurses. Sixteen were present. Cases of deaths occuring in hospital during the month were: coronary embolism, Dr. G. Y. Gillespie, Jr., premature birth at 7th month, Dr. J. F. Lucas; shock from extensive burns, Dr. F. M. Sandifer, Jr.

Dr. W. E. Denman was elected chief-of-staff, Dr. J. A. Crawford, vice-president, and Dr. I. B. Bright, secretary-treasurer.

Greenwood, W. B. Dickens,
Nov. 2, 1937

HOUSTON HOSPITAL STAFF MEETING

At the regular monthly staff meeting of the Houston Hospital, Thursday night, October 28, "Houlka Night" was observed with Dr. J. M. Hood, Houlka, presiding.

The musical program was furnished by

Mrs. Bud Turner, Misses Hendron, Davis and King, all of Houlka, and was enjoyed by all.

Dr. W. C. Walker, the oldest member of the staff, was the principal speaker for the evening and gave a paper on "Icterus Neonatorum." This paper was very interesting and historical and was freely discussed by the following: Dr. J. M. Hood, Dr. C. W. Patterson, Dr. E. B. Young, Dr. J. S. Edmondson, Dr. W. H. Reid, Dr. E. F. Arnold, Dr. E. K. Guinn, Dr. G. G. Armstrong, Dr. S. K. Gore, Dr. J. R. Williams, Dr. O. B. Crocker and Dr. V. B. Philpot.

Houston, Nov. 1, 1937.

VICKSBURG SANITARIUM

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held Wednesday, Nov. 10, and after a supper served at 6:30 p. m., was called to order by the president, Dr. G. M. Street, with eleven members and one guest present.

Reports from the Records Department and Analysis of the Work of the Hospital.

Special Case Reports:

1. Carcinoma of the Urinary Bladder.—Dr. A. Street (Read by Dr. L. J. Clark).
2. Ectopic Pregnancy.—Dr. J. A. K. Birchett, Jr.

Special Report:

The Recent Interstate Postgraduate Medical Assembly at St. Louis.—Dr. R. A. Street, Jr.

Three-Minute Reports of the Literature of the Month:

Dr. L. S. Lippincott.—Aspiration Biopsy; Oral Vaccination.

There being no further business the staff adjourned at 8:50 p. m.

The next meeting of the staff will be on Friday, December 10.

ABSTRACT: CARCINOMA OF THE URINARY BLADDER

A. Street, M.D.

Patient.—White, male, age 70, single; retired planter. Admitted to Sanitarium December 7, 1936.

Chief Complaint.—Bladder frequency, tenesmus, and bloody urine, present for one year, much worse for the last month. Considerable loss of weight and strength in the last six months. No fever, no lumbar pain, no nausea or vomiting. Appetite fair, food well tolerated. Bowels move normally.

Previous History.—Had a malignant growth removed from face surgically in 1925. No venereal; no other remarkable illness.

Family History.—No malignancy; no tuberculosis.

Physical Examination.—Patient is only fairly developed, appears weak and senile, and is very poorly nourished. Temp. 99 degrees F., pulse 88, respiration 18, blood pressure 150/90. General physical examination showed nothing remarkable. Local examination: patient can void small quntities of grossly bloody urine; catheter yields no residual. Rectal examination shows the rectal bulb normal, prostate not enlarged is smooth and of normal consistency. Cystoscoic examination: introduction easy, bladder contains much debris. After considerable washing an extensive mass could be observed occupying the right half of the bladder. The surface of this mass appeared to be ulcerating and did not show the delicate waving projections characteristic of papilloma. Biopsy was taken and submitted to the pathologist, Dr. Lippincott, for microscopic examination. Surgical pathology as follows:

From bladder (Weght 2 grams)—10 pieces three-sixteenths by one-sixteenth by one-sixteenth inch to one by one-third by one-fourth inch, irregular, grey and brown, moderately firm. Apparently some blood clot. Microscopic: Carcinoma (Grade IV). Numerous mitotic ilgures. Some multinucleated cells. Much granular necrosis. Chronic and acute inflammatory; granulation tissue; passive congestion. Much interstitial blood; edema. Some vessels show thrombosis.

Diagnosis: Carcinoma (Grade IV).

Urinalysis.—Red, cloudy, acid, sp.gr.-1.025; albumin, trace; hb (4 plus); indican, none. Sediment: rare squamous epithelial cells; many fresh blood; some bacilli and cocci; rare mucous threads.

Red, white and differential blood counts showed nothing remarkable. Blood Wassermann negative.

It was evident that the patient had an extensive infiltrating carcinoma of the bladder. X-ray of the chest and pelvis showed no metastases. The only surgical relief that could offer any hope under such conditions would be total cystectomy, and the patient was in no physical condition for that extensive an operation. He was given, as a palliative measure, fractional deep x-ray therapy, 200 kv., filter ½ millimeter copper and 1 millimeter of aluminum, distance 50 centimeters, multiple portals, 400 R daily, until 7500 R were given. This radiation produced mild epithelitis, but was well tolerated, and bladder symptoms receded during its administration. Patient was discharged with instructions to return in one month for further observation. He was not seen again until August 13, 1937, a period of seven and one-half months. On returning, he explained that he knew he was due to return a month from the time of discharge from the hospital, but because he had no symptoms at that time, he did not consider it necessary. He also stated that he had remained symptom-free and had gained weight and strength and that his only reason for returning now was that he thought he might need a check-over. There had been no blood in the urine and he never urinated over once or twice at night, Examination showed the general physical condition much improved. Blood examination showed red count and hemoglobin normal, white and differential count normal. Urine examination showed some pus, no blood. Cystoscopic examination showed an ulcerating growth just lateral to the right ureteral orifice, apparently not more than ½ inch in diameter. The remainder of the bladder mucosa appeared normal. Surgical removal was then advised, but the patient refused this advice. Therefore, the mass was removed flush with the bladder wall, using the McCarthy resectoscope and high frequency cutting current. The base proved to be sessile and infiltrating, and covered an area estimated at three-fourths by one-half inch. This area was then thoroughly coagulated with the high frequency current. Microscopic examination of tissue removed at this time showed carcinoma, (Grade IV). The operation was well tolerated, and the patient remains in good condition. He returns once each month for coagulation of the tumor base.

Of course, there is no chance of curing this highly malignant infiltrating bladder carcinoma by such treatment.

REMARKS

This case appears to be interesting because of the remarkably satisfactory palliative relief of symptoms and reduction in the size of an extensive bladder carcinoma. Possibly, the slowness of extension of this growth and unusually good response to x-ray therapy was partially due to the advanced age of the patient.

ABSTRACT: ECTOPIC PREGNANCY

J. A. K. Birchett, Jr., M.D.

Patient.—Colored, female, age 29, housewife.

Chief Complaint.—Acute abdominal pain, which began about three hours ago associated with extreme weakness and fainting.

History of Present Complaint.—Early this morning had severe abdominal pain when she went to have an evacuation of the bowel. She said it felt as if something had "pulled a-loose" in her lower abdomen and the pain was so severe that she was unable to walk back to her bedroom without assistance. There was some mausea with vomiting, and her hands and limbs felt as if they were numb and, shortly after that, she fainted.

Past History.—General health has been good. She has had two children, normal deliveries, her last baby being a year old. She had not had a menstrual period for the past three months, and two months ago she passed a large amount of dark blood and blood clots and she thought that, at that time, she had had an abortion and was confined to a hospital for several days following the passage of this suspected pregnancy. Following this hospitalization, the flow completely ceased, and she has been up and about, taking care of her usual housework without any discomfort at all. She has never had any operations. Her general health has been good.

Family History.—No history of tuberculosis or cancer.

Physical Examination.—On admission very acutely ill; evidently in shock. Pulse rapid, 130; the patient had an anxious expression and was in a cold, clammy sweat. Blood pressure 100/80. The general examination was not remarkable, but the pelvic examination showed a large mass; the vaginal vault was a deep purplish color and the cervix was of a bluish tint, commensurate with pregnancy. There was some blood passing from the cervical os. The abdomen showed marked rigidity with possibility of a mass in the suprapubic region. The bladder was catheterized and there was no change in the evidence of a lower abdominal tumor.

Clinical Laboratory.—Urine essentially negative. The red cell count showed a secondary anemia, red cells 3,230,000, 57 per cent hemoglobin; total leukocytes 5,900; small lymphocytes 4 per cent, large lymphocytes 1 per cent mature neutrpoils 66, band forms 29. The Wassermann test, taken on a previous admission was negative.

It is interesting to note that on a previous admission, approximately six weeks before the present observation, that this patient was admitted to the Sanitarium with lower abdominal pain, fever, and bloody vaginal discharge. The referring physician had made a diagnosis of interrupted pregnancy, although the patient did not say that she had had an interruption of the pregnancy. After observation here in the Sanitarium and administration of glucose and supportative treatment, the patient was examined under gas anaesthesia, because of the pressure of a large pelvic mass which was thought to be a post-abortal parametrial or tubal infeltion. An aspirating needle was introduced into this mass in the posterior cul-de-sac to determine whether it was a pelvic abscess or leiomyoma of the uterus, as there was a large, rather dense, mass felt in the right cul-de-sac, which was thought to be due to one of these two conditions. The aspirating needle, when introduced, brought forth a quantity of amber colored fluid with no pus and, after this serous fluid was aspirated, a distinct right pelvic mass could still be felt, which would be commensurate with the presence of a subserous fibroid or a chronic ovarian tumor. The refering physician was told of this finding, and he was advised to bring the patient back after she had been sufficiently built up so that elective surgery could be done for this tubo-ovarian mass or subserous fibroid. This patient was not heard from again until the referring physician brought her into the institution with the above history and findings. The bluish tinge of the vaginal vault convinced us that we wee dealing with a hemorrhage in the pelvic cavity which, very probably, was originating from a ruptured ectopic pregnancy, even though the previous history had been that this patient had already been treated for a spontaneous abortion. In view of the fact that this patient had not menstruated for four months and that there was the history of tubal rupture, laboratory was immediately advised, and a donor sought for blood transfusion.

Procedure.—Under a general anaesthetic, a low mid-line incision gave us a picture of a typical ruptured ectopic pregnancy. The peritoneal cavity was filled with blood, the right tube was the source of a very well-developed fetus, the tube having evidence of rupture and the placenta was quite large and adherent to the cecum and several coils of the small bowel, from which it was getting adequate blood supply. The fetus was of such size that the heart beat was present and the apex beat was evident for several minutes after the placenta was separated, and the fetus and mass was lifed from he peritoneal cavity. The bleeding point, which was at the right utero-ovarian anastomosis, was ligated and the blood clots were cleaned from the peritoneal cavity, and the abdomen was closed with one drain. A transfusion was given immediately after surgery and the patient had a rather stormy convalescense for 48 hours, after which her general condition rapidly improved and she was discharged on the fourteenth postoperative day, the wound being clean.

Comment.—An interesting fact in connection with this case is that this patient presented herself for treatment with a suspected spontaneous abortion, with typical signs and symptoms of such condition and after she was discharged from the hospital for this complaint, that she had an absolute uneventful period of time wherein her general health was good, even though she still retained the original pregnancy and with no disturbance until the tubal rupture at about four months. It is also interesting to know that an aspirating needle was intoduced into this tubal pregnancy with withdrawal of the amniotic fluid, without any interruption of the development of the pregnancy, for I take it that the straw-colored fluid which was aspirated from the right tubo-ovarian mass at the time of the first admission was from the tubal pregnancy and not from any ovarian or tubal cystic condition. It is rather remarkable to me that a condition of this sort could have as much trauma as was inflicted upon it and still progress to the size that it attained during the time that elapsed from the first admission and observation until the final rupture of the tubal pregnancy.

HONOR ROLL

The following have contributed to the Association section of the journal this month:

County Editors: Desoto, L. L. Minor; Hinds; Humphreys, J. W. Jackson; Leflore, W. B. Dickins; Monroe, C. E. Boyd; Washington, J. A. Beals.—6.

Societies: Mississippi State Hospital Association; Clarksdale and Six Counties Medical Society, N. C. Knight; East Mississippi, Bob A Cameron; Issaquena-Sharkey-Warren Counties; Tri-County, R. B. Zeller.—5.

Medical Literature: Harvey F. Garrison, Alston Callahan, L. S. Lippincott.—3.

Hospitals: Greenwood Leflore, W. B. Dickins; Houston Hospital; Vicksburg Sanitarium.—3. munity; Vicksburg Sanitarium.—4.

Others: Felix J. Underwood.

Total: 18.

Thank You.

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASSOCIATION

President .... Mrs. C. C. Hightower
Hattiesburg
President-Elect .... Mrs. John Howell
Canton
First Vice President .... Mrs. D. J. Williams
Gulfport
Second Vice President .... Mrs. J. P. Wall
Jackson
Third Vice President .... Mrs. Henry E. Frizell
Vaughn
Fourth Vice President .... Mrs. V. B. Philpot
Houston
Recording Secretary .... Mrs. H. C. Ricks
Jackson
Treasurer .... Mrs. J. D. Simmons
Cleveland
Historian .... Mrs. Harvey F. Garrison
Jackson
Parliamentarian .... Mrs. Adna G. Wilde
Jackson

Councillors: Mrs. T. G. Hughes, Clarksdale, first district; Mrs. C. M. Roberts, New Albany, second district; Mrs. W. H. Cleveland, Tupelo, third district; Mrs. E. C. O'Cain, Winona, fourth district; Mrs. Hugh Johnston, Vicksburg, fifth district; Mrs. H. Lowry Rush, Meridian, sixth district; Mrs. J. P. Culpepper, Hattiesburg, seventh district; Mrs. W. K. Stowers, Natchez, eighth district; Mrs. Archibald C. Hewes, Gulfport, ninth district.

CENTRAL MEDICAL SOCIETY AUXILIARY

Members of the Auxiliary to the Central Medical Society were guests at a most interesting meeting on Tuesday, Nov. 2, 1937 at the Preventorium of the Miss. State Sanatorium. The hostesses were Mrs. Henry Boswell, Mrs. E. E. Wacker, Mrs. C. D. Rosborough, Mrs. E. D. Kemp, Mrs. Clark, and Mrs. W. J. C. Wiemers.

Dr. Boswell made a short welcoming address after which a business meeting, presided over by the president, Mrse. F. D. Hollowell, was held in one of the Preventorium School rooms. Later delicious refreshments were served in the dining-room. Twenty-seven members were present.

The regular monthly meeting of th Auxeiliary will be held on Tuesday, Dec. 7, at 3 p. m., in the home of Mrs. A. G. Wilde at 1700 St.Am., Jackson.

Among the members of Auxiliaries in Mississippi who attended the meetings of the Southern Medical Association in New Orleans are: Mrs. H. L. McCalip, Yazoo City; Mrs. A. H. Little, Sr., Wesson; Mrs. E. C. Parker, Gulfport; Mrs. E. T. White, Greenville; Mrs. F. L. VanAlstine, Jackson; Mrs. W. H. Anderson, Booneville; Mrs. Felix J. Underwood, Jackson; Mrs. H. N. Mayes, New Albany; Mrs. Harvey F. Garrison, Sr., Jackson; Mrs. John A. Crawford, Greenwood; Mrs. R. H. DeJarnette, Rolling Fork; Mrs. R. C. Eley, Moss Point; Mrs. H. R. Fairfax, Brookhaven; Nollie C. Felts, Hattiesburg; Mrs. R. Conway Finlay, Glen Allan; Mrs. H. E. Frizell, Chalmette;; Mrs. J. Gould Gardner, Columbia; Mrs. Harvey F. Garrison, Jr., Jackson; Mrs. S. K. Gore, Mantee; Mrs. Andrew Hedmeg, Natchez; Mrs. Archibald C. Hewes, Gulfport; Mrs. J. S. Hickman, Meridian; Mrs. Charley Conner, Hattiesburg; Mrs. J. M. Hood, Houlka; Mrs. John B. Howell, Canton; Mrs. J. V. James, Bentonia; Mrs. A. H. Little, Oxford; Mrs. H. Carroll McLeod, Hattiesburg; Mrs. R. C. Massengill, Brookhaven; Mrs. B. B. O'Mara, Biloxi; Mrs. J. T. Rainer, Yazoo City; Mrs. C. H. Ramsey, Laurel; Mrs. W. Pierre Robert, Vicksburg; Mrs. T E. Ross, Hattiesburg; Mrs. H. R. Shands, Jackson; Mrs. E. B. Stribling, Rolling Fork; Mrs. James Grant Thompson, Jackson,; Mrs. D. H. Thornhill, Crosby; Mrs. W. W. Watkins, Aberdeen; Mrs. N. C. Womack, Jackson.

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical
Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tennessee

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 6-3288
899 Madison Ave. Memphis, Tenn.

JOHN W. RAGSDALE, M.D.
CHESTER D. ALLEN, M.D.
327 Medical Arts Bldg.
Memphis, Tenn.
Urology and Urological Surgery

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as Applied in This Field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Phones: Off: 6-1923 —:— Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Mississippi

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Mississippi

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WILLIAM MILTON ADAMS, M.D.
Practiced Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tennessee

HENRY G. HILL, M.D.
Clinic 847 Madison Avenue
Memphis, Tennessee
Practice Limited to:
Diseases and Injuries, Bones and Joints, Cripples
and Deformities, Braces and
Appliances

FRANK W. SMYTHE, M.D.
Practice Limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-Surgery
Physicians and Surgeons Bldg.
Memphis, Tennessee
Phones: Off: 6-3288 Res.: 29645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tennessee

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tennessee

GILBERT J. LEVY, M.D.
Practiced Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tennessee

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

DR. WILLIAM F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Mississippi

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Building
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Mississippi

ROBERT H. BRUMFIELD, M.D., F.A.C.S.
General Surgery and Urology
McComb, Mississippi

DR. J. W. LIPSCOMB, JR.
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Mississippi

LAWRENCE W. LONG, B.A., M.D., F.A.C.S
410-412 Standard Life Bldg.
Jackson, Mississippi
GENERAL SURGERY
Surgical Diseases of Children

F. M. ACREE, M.D.
Greenville, Miss.

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

R. L. RONALD, M.D.
207-8 Miazza-Woods Bldg.
Meridian, Mississippi
Office Hours: 10 to 12 a. m.—3 to 5 p. m.

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians and Surgeons Bldg
(899 Madison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye. Ear, Nose and Throat
and
Bronchoscopy
Princess Theater Building
Columbus, Miss.

W. L. WILLIAMSON, M. D. F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

WILLIAM T. BLACK, M.D., F.A.C.S.
Gynecology
Medical Arts Building
Memphis, Tenn.

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg), F.A.C.S.
Genito-urinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

DOUGLAS D. BAUGH, M.D.
—CLINIC—
Diagnosis—Internal Medicine
First National Bank Building
Columbus, Miss.

DR. H. RANDOLPH UNSWORTH
Practice Limited to Nervous and Mental Diseases
Hours: 1 to 5, by appointment.
10 to 12 on Saturdays
Office: 819 Maison Blanche Building.

WALTER W. ROBINSON, M.D.
Crisler Clinic
1291 Union Avenue
Memphis, Tennessee
Specializing in
PATHOLOGY
ROENTGEN
DIAGNOSIS and THERAPY

DR. J. CASH KING
formerly at John Gaston Hospital
and University of Tennessee
announces the opening of his office
for the practice of RADIOLOGY
902 Madison Avenue
Memphis, Tenn. Telephone 6-7460

SHIELDS ABERNATHY, M.D., F.A.C.S.
HOWARD H. ASHBURY, M. D., Oncologist
CLINIC
For General Surgical and
Neoplastic Diseases
Complete Modern Radiological Equipment
1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING
I. G. Duncan, B.S., M.D., F.A.C.S.
J. S. Fleming, M.D.
GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION
Suite 1500-06 Commerce Title Bldg
Memphis, Tennessee

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS, Clinical Pathology
MARJORIE WADE, Bacteriology.

THE WOMAN'S CLINIC
W. T. Pride, M.D.
Carey Bringle, M.D.
James M. Brockman, M.D.
Gynecology Obstetrics
1460 Madison Avenue Memphis, Tenn.

WILLIAM T. SATTERFIELD, M.D., F.A.C.S.
General Surgery
McLemore Clinic
919 E. McLemore Avenue
Memphis, Tennessee

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

EDWARD CLAY MITCHELL—QUINN CLINIC
1073 Madison Avenue
Memphis, Tennessee
Practice Limited to
Infant Feeding and Diseases of Children
Hours: 10:00 A. M. to 12:00 M.
2:00 to 5:00 P. M.
By Appointment Phone 7-1307

DUANE CARR, M.D.
Diseases of the Chest
Endoscopy — Thoracic Surgery

Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

Telephones: 8-3662; 2-3226; 2-2138

THE MEDICAL CLINIC
910 North State
Jackson, Mississippi
George W. Owen, M.D., Allergy
T. E. Wilson, M.D., Cardiology & Internal Medicine
John Bullock, M.D., Pediatrics: Allergic Diseases of Children
Gayden Ward, M.D., Internal Medicine, Gastroenterology
Robin Harris, M.D., Eye, Ear, Nose & Throat: Diagnosis.
Diagnostic Facilities: X-ray, Electrocardiogram, Basal Metabolism Complete Clinical Laboratory, Allergy Laboratory.

Compliments
JAMES W. BODLEY, M.D.
Memphis, Tenn.

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

THE SOUL OF THE SURGEON
By DR. RUDOLPH MATAS

Composition cover sixty cents, leather eighty-five.

Send your order to

THE MISSISSIPPI DOCTOR
Booneville, Miss.

Founded in 1879
Allison's Wells
HOTEL - SANATORIUM

Famous through the years for the wonderful properties of its mineral water and as a health resort, Allison's Wells, under the direction of Dr. A. J. Brown this year has become the only sanatorium of its kind in Mississippi.

In addition to maintaining its full popularity as a resort-hotel, Allison's Wells has added a sanatorium department for the treatment of malaria, mild mental diseases, gastro-intestinal trouble, gall bladder trouble, arthritis and other troubles.

The sanatorium, which is guided by a board of governors composed of ethical physicians, is equipped with modern facilities.

For full information and rates, address

ALLISON'S WELLS,
HOTEL - SANATORIUM
On I. C. Main Line between Canton and Durant, on Jefferson Davis Highway
WAY, MISS.
A. J. Brown, M.D.
"A Source of Health In The Garden Spot of Central Mississippi"

THE WALLACE SANITARIUM
MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

Advancing Years of Happiness

Advancing years of happiness — that's what it means to live with the conveniences and comforts of modern electric home services. For with every passing year new, thrilling aids to Better Living find their way into Mississippi homes. As a basic Mississippi Industry employing more than a thousand Mississippians, this company takes pride in its service — helping housewives to happiness in over 305 cities, towns and communities of the state.

MISSISSIPPI POWER & LIGHT CO.

HOUSTON HOSPITAL, Inc., HOUSTON, MISSISSIPPI

Approved: American College of Surgeons and American Hospital Ass'n.

—FULL TIME STAFF—

V. B. PHILPOT, M.D., F.A.C.S. Surgery and Gynecology	G. G. ARMSTRONG, M.D., F.A. C.S. Eye, Ear, Nose and Throat
J. R. WILLIAMS, M.D. X-ray, Superficial and Deep Therapy	O. B. CROCKER, B.A., B.S., M.D. Diagnosis, Internal Medicine

PRINTING PLATE SPECIALISTS
MISSISSIPPI ENGRAVING CO.
Jackson Miss.

JEFFERSON STANDARD LIFE INSURANCE CO.

The largest regular ordinary Life Insurance Company South of the Mason-Dixon Line.

Policy contracts especially adapted to members of the medical profession.

Trained life underwriters to advise and assist in securing your needs.

J. L. DENSON, District Manager
523-25 Lampton Building
Jackson, Miss.

JEFFERSON STANDARD LIFE INSURANCE CO.
JULIAN PRICE, President
Greensboro, N. C.

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — O. C. COUNCE, M.D., Associate

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 **221 North Parrish St.**
Jackson, Mississippi

DUCKWORTH DRUG COMPANY
Booneville, Mississippi

Distributors of:

Luminal of Sodium

Tablets and Powder

Novocaine Ampoules

Atabrine

Elixir of Pryamidon

Theominal Tablets

WINTHROP CHEMCAL COMPANY
New York City

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most
Modern Business School

A. S. McCLENDON, President

MEMPHIS' *newest and most conveniently located hotel . . . .*

the Wm. Len

In addition to its famous southern cuisine and luxurious accommodations, the Wm. Len serves its guests an extra measure of genuine southern hospitality.

right down town in Memphis

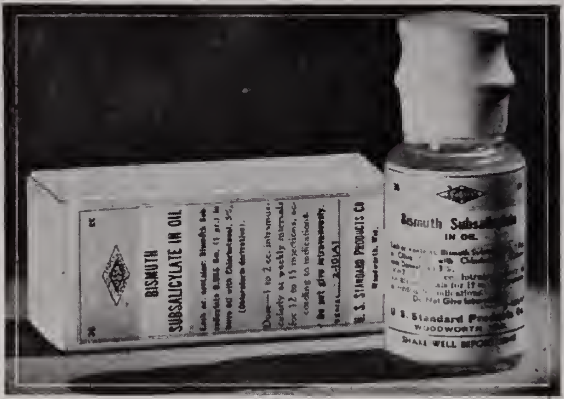
ON MAIN AT MONROE

Hotel Wm. LEN

MEMPHIS, TENN.

R. E. McEachin, manager

Bismuth Subsalicylate (U.S.S.P.)



ACCEPTED
AMERICAN MEDICAL ASSN.
Council on Pharmacy and Chemistry

FOR TREATMENT OF SYPHILIS

According to clinical results, Bismuth Subsalicylate offers the following advantages:

- Relatively non-toxic when the dose is properly controlled.
- No contraindications when administered following arsphenamine or mercury.
- Practically non-irritating so far as local pain from the injection is concerned, and freedom from abscesses at site of injection.
- U.S.S.P. Co. Bismuth Subsalicylate does not settle solidly — easy to shake.

Write for catalog or information on any product in which you are interested.

UNITED STATES USSP STANDARD PRODUCTS

U.S. STANDARD PRODUCTS CO. Woodworth, Wis.

DO YOU NEED . .

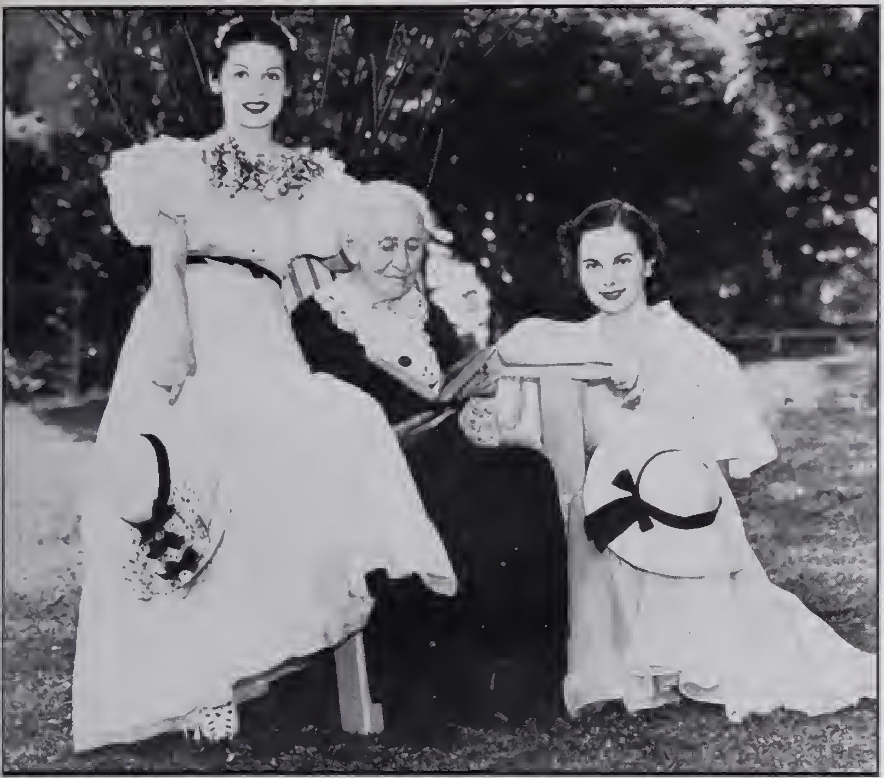
- Prescription Blanks
- Laboratory Blanks
- Letter Heads
- Statements
- Envelopes
- Blotters

SPECIAL: 10,000 Prescription Blanks..........$9.50

— Send your order to —

BOONEVILLE PRINTING CO., Inc.

Booneville, Miss.



BLUE MOUNTAIN COLLEGE

BLUE MOUNTAIN,
MISSISSIPPI

Healthful
High Altitude
Mountain Springs
Outdoor Exercise
Golf
Tennis
Aquatics
Archery
Softball
Basketball
Volleyball

Lawrence T. Lowrey,
President

Beautiful youth and beautiful age acquired in the ways of health and righteousness. "Mother" Berry and students of the college.

FULL MEMBERSHIP IN SOUTHERN ASSOCIATION OF COLLEGES
FULL MEMBERSHIP IN ASSOCIATION OF AMERICAN COLLEGES

Located 25 miles south of the Tennessee line in a high and healthful setting among the "Berkshire Hills of North Mississippi," on the slope of beautiful "Blue Mountain," the college in its sixty-fifth year continues to train a superior type of young woman in the arts, letters, and professions, preparing her for life as a woman will live it.

No cigarettes, no alcoholic beverages, regular hours, sufficient rest, scientifically planned diet, properly exercised bodies, adequate relaxation, wholesome recreation, and trained minds, bring girls through the four most delicate years of their lives at Blue Mountain, the years in which they are emerging from girlhood into womanhood, healthy in body, cultured in mind, refreshed in spirit.

Dr. Lawrence T. Lowrey

At the right is shown a group of typical Blue Mountain girls with Dr. John L. Hill, Nashville, Tenn., who gave the baccalaureate address on May 24, 1937.

DR. GEO. E. RILEY
ST BD OF HEALTH

Main Building

FENWICK SANITARIUM

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES

DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association — medical staff specially trained — clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds — homelike environments — located in the healthy and beautiful town of Covington, Louisiana — a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

DUPLICATE
THE N. Y. ACADEMY OF MEDICINE
NOV 25 '38
LIBRARY

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, JANUARY, 1938 NO. 8.

Wide Walls

JAN REV

Give me wide walls to build my house of Life—
The North shall be of Love, against the winds of fate;
The South of Tolerance, that I may outreach hate;
The East of Faith, that rises clear and new each day;
The West of Hope, that e'en dies a glorious way.
The threshold 'neath my feet shall be Humility;
The roof—the very sky itself—Infinity.
Give me wide walls to build my house of Life.

—*Author Unknown*

LIBRARY
MISSISSIPPI STATE BOARD OF HEALTH
JACKSON

25 '38

The swaddled infant pictured at right is one of the famous works in terra cotta exquisitely modeled by the fifteenth century Italian sculptor, Andrea della Robbia. In that day infants were bandaged from birth to preserve the symmetry of their bodies, but still the gibbous spine and distorted limbs of severe rickets often made their appearance.

A bambino from the Foundling Hospital, Florence, Italy,—A. della Robbia

Glisson, writing in 1671, described an ingenious use of swaddling bands — "first crossing the Brest and coming under the Armpits, then about the Head and under the Chin and then receiving the hands by two handles, so that it is a pleasure to see the Child hanging pendulous in the Air . . . This kind of Excercise . . . helpeth to restore the crooked Bones. . . ."

STRAPPED FOR RICKETS

SWADDLING was practised down through the centuries, from Biblical times to Glisson's day, in the vain hope that it would prevent the deformities of rickets. Even in sunny Italy swaddling was a prevailing custom, recommended by that early pediatrician, Soranus of Ephesus, who discoursed on "Why the Majority of Roman Children are Distorted."

"This is observed to happen more in the neighborhood of Rome than in other places," he wrote. "If no one oversees the infant's movements, his limbs do in the generality of cases become twisted. . . . Hence, when he first begins to sit he must be propped by swathings of bandages. . . ." Hundreds of years later swaddling was still prevalent in Italy, as attested by the sculptures of the della Robbias and their contemporaries. For infants who were strong Glisson suggested placing "Leaden Shooes" on their feet and suspending them with swaddling bands in mid-air.

How amazed the ancients would have been to know that bones can be helped to grow straight simply by internal administration of a few drops of Oleum Percomorphum. What to them would have been a miracle has become a commonplace of science. Because it can be administered in drop dosage, Oleum Percomorphum is especially suitable for young and premature infants, who are most susceptible to rickets. Its vitamins A and D derived from natural sources, this product has 100 times the potency of cod liver oil.* Important also to your patients. Oleum Percomorphum is an economical antiricketic.

Oleum Percomorphum offers not less than 60,000 U.S.P. vitamin A units and 8.500 U.S.P. vitamin D units per gram. Supplied in 10 and 50 c.c. bottles, also in boxes of 25 and 100 ten-drop soluble gelatin capsules containing not less than 13,300 vitamin A units and 1,850 vitamin D units (equal to more than 5 teaspoonfuls of cod liver oil*).

*U.S.P. Minimum Standard

MEAD JOHNSON & COMPANY, Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

Neo-Silvol (Colloidal Silver Iodide Compound) is particularly suited for use in eye, ear, nose and throat. It is antiseptic in action and has the added advantages of being non-staining and non-irritating. Even in 25 to 50 per cent solution Neo-Silvol will not injure delicate mucous membranes.

Ten to twenty per cent solutions of Neo-Silvol are suitable for most eye infections; gonorrheal ophthalmia may call for stronger solutions—25 to 50 per cent. In inflammatory conditions of the nose, naso-pharynx, pharynx and tonsils, Neo-Silvol (10 to 25 per cent strength) may be sprayed or swabbed on the involved areas three or four times daily. Neo-Silvol solutions are easily prepared by dissolving the glistening, cream-colored granules in water.

•

Supplied in six-grain capsules, packages of 50 and 500, and in 1-ounce and 1/4-pound bottles.

PARKE, DAVIS & COMPANY, DETROIT · *The World's Largest Makers of Pharmaceutical and Biological Products*

THE DAY YOU FIRST INSPECT IT...

or after you've used it a year

The Pandex will impress you by its extraordinary flexibility, its many novel and eminently practical features, its utter dependability. Like the famed two-tube two hundred milliampere Fluoradex, the new single-tube sixty milli Pandex meets a definite demand. In the small hospital, where the scope of diagnostic x-ray work is limited, it serves adequately for every purpose. It is an excellent auxiliary unit to relieve major equipment for its specialized functions in the large institution.

The brilliant new Westinghouse Pandex is fully described in Bulletin No. 371. Your copy is waiting for you.

WESTINGHOUSE
X·RAY CO·INC·
LONG ISLAND CITY·N·Y·

THE DICK X-RAY COMPANY
MEDICAL ARTS BUILDING **MEMPHIS, TENN.**

POYTHRESS

AND PROGRESS

THE GROWTH of the POYTHRESS' laboratories within a comparatively short span of life, may only be credited to the confidence and respect won throughout the medical profession.

Steady increase in prescribing and using POYTHRESS' products has continually forced expansion and enlargement of facilities, memorializing a service to medicine.

Nothing short of the most exacting quality in drugs and efficiency in compounding useful remedies could have gained such results, nor earned the patronage of an enlargening circle of practicing physicians.

POYTHRESS and PROGRESS have become synonymous.

WILLIAM P. POYTHRESS & COMPANY
INCORPORATED
RICHMOND, VIRGINIA

MANUFACTURERS OF FINE PHARMACEUTICAL SPECIALTIES

DIABETICS

LIVE LONGER

Today

THE LIFE SPAN of the diabetic has been lengthened considerably following the discovery of Insulin and the growing knowledge of its use. There is, however, a definite responsibility on the part of the physician to educate the many new diabetics in the importance of proper diet and proper use of Insulin preparations.

The apparent increase in diabetes in recent years has been attributed to the modern manner of living, increased sugar consumption, overeating and lack of muscular exercise. With proper management the great majority of patients can be kept well-nourished sugar-free. and at work.

Insulin Squibb is an aqueous solution of the active anti-diabetic principle obtained from pancreas.

It is accurately assayed, uniformly potent, carefully purified, highly stable and remarkably free of pigmentary impurities and proteinous reaction-producing substances.

Insulin Squibb of the usual strengths is supplied in 5-cc. and 10-cc. vials.

Protamine Zinc Insulin, *Squibb* complies with the rigid specifications of the Insulin Committee, University of Toronto, under whose control it is manufactured and supplied. It is available in 10-cc. vials. When this preparation is brought into uniform suspension, each cc. contains 40 units of Insulin together with protamine and approximately 0.08 mg. of zinc.

E·R·SQUIBB & SONS, NEW YORK
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

HOYE'S SANITARIUM

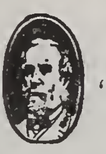
"IN THE MOUNTAINS OF MERIDIAN"
Meridian. Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital



Robert E. Lee Hotel

"The High Spot of Southern Hospitality"

Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager STEWART GAMMILL, Jr., Asst. Mgr.

Short-Wave Diathermy Unit

STANDARD MODEL
500 WATTS OUTPUT
18 METERS

Standard accessory equipment furnished with the Hogan Brevatherm "Standard Model" includes:

1 pair 5" x 7" conderser plate electrodes
1 pair 7" x 9" condenser plate electrodes
2 pair cuff electrodes (medium and small)
1 felt "build-up" pad for each electrode above
1 pair rubber electrode bandages with fasteners
1 line cord and plug

Treatment cords with jack plugs are attached to each electrode.

THE GWINNER-MERCERE CO.
191 MADISON AVE.
MEMPHIS, TENN.

BAPTIST HOSPITAL
Jackson, Miss.

MISSISSIPPI'S . . . only

and most conveniently located Physician's and Surgeon's Supply House

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St. Phone 1444
JACKSON, MISS.

Let's Grow With Mississippi

Your Every Need Quickly Answered

- Surgical Instruments
- Physio-Therapy
- Belts and Trusses
- Rubber Goods
- Wheel Chair Rentals
- Hospital Furniture

Etc.

The Friendly Store of Dependable Service

As Close As Your Telephone

DOCTOR

You are cordially invited to attend the

53rd ANNUAL CONVENTION

of the

MID-SOUTH POST-GRADUATE MEDICAL ASSEMBLY

at

HOTEL PEABODY, MEMPHIS, TENN.

February 15, 16, 17, 18, 1938

Read this list of those who will deliver addresses and make your hotel reservations at once.

Dr. F. A. Willius, Medicine, Rochester, Minn.
Dr. Mont R. Reid, Surgery, Cincinnati, Ohio
Dr. Harry C. Solomon, Neuropsychiatry, Boston, Mass.
Dr. Ramon Castroviejo, Ophthalmology, New York, N. D.
Dr. Thos. G. Orr, Surgery, Kansas City, Mo.
Dr. Harvey B. Stone, Surgery, Baltimore, Md.
Dr. E. R. Long, Tuberculosis, Philadelphia, Pa.
Dr. Russell L. Haden, Medicine, Cleveland, Ohio
Dr. Hugh Cabot, Urology, Rochester, Minn.
Dr. Alton Ochsner, Surgery, New Orleans, La.
Dr. C. H. Crego Jr., Surgery (Orthopedic), St. Louis, Mo.
Dr. A. F. Hartmann, Pediatrics, St. Louis, Mo.
Dr. Cyrus C. Sturgis, Medicine, Ann Arbor, Mich.
Dr. Gabriel Tucker, Bronchoscopy, Philadelphia, Pa.
Dr. E. L. King, Obstetrics, New Orleans, La.
Dr. J. E. Moore, Syphilis, Baltimore, Md.
Dr. Geo. W. Kosmak, Obstetrics, New York, N. Y.
Dr. J. R. Hume, Otolaryngology, New Orleans, La.
Dr. Jas. H. Hutton, Medicine, Chicago, Ill.
Dr. J. H. Means, Medicine, Boston, Mass.
Dr. A. Graeme Mitchell, Pediatrics, Cincinnati, Ohio
Dr. L. A. Buie, Proctology, Rochester, Minn.
Dr. S. D. Kramer, Poliomyelitis, Brooklyn, N. Y.

"Early" is the watchword in

PNEUMONIA CONTROL

IN A RECENT ISSUE OF THE HEALTH OFFICER, the following watchwords were promulgated for the control of pneumonia:

"*Early* diagnosis, *early* typing and *early* serum treatment mean *early* recovery."

The importance of *early typing* cannot be overemphasized, for it not only serves to identify the specific etiologic agent of the pneumonia, but frequently, and especially in atypical pneumonias, it also aids in fixing the diagnosis and makes possible the early administration of specific serum.

The Neufeld Rapid Typing reaction should be applied to the patient's sputum immediately upon suspicion of lobar or bronchial pneumonia.

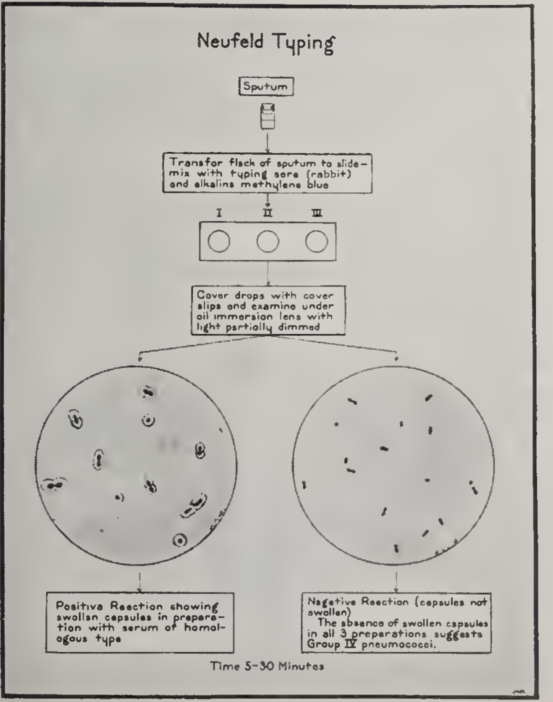
"Pneumococcus Typing Serum *Lederle*" Types 1 to 32 for the Neufeld Reaction, ready for immediate use, are available in 1.0 cc. vials and in packages of 5 capillary tubes for individual tests.

An editorial in the December 4, 1937 issue of the Journal of the American Medical Association states:

> "*In view of the distribution of pneumonia and the known effectiveness of serum when given early in the most fatal types, the facilities for typing are of the utmost importance.*"

A printed list of 2000 laboratories in the United States and Canada to which sputum may be referred by practitioners for typing has been published in directory form by Lederle and may be obtained free on request to

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA NEW YORK


Neufeld Typing
Sputum
Transfer fleck of sputum to slide–mix with typing sera (rabbit) and alkaline methylene blue
I
II
III
Cover drops with cover slips and examine under oil immersion lens with light partially dimmed
Positive Reaction showing swollen capsules in preparation with serum of homologous type
Negative Reaction (capsules not swollen) The absence of swollen capsules in all 3 preparations suggests Group IV pneumococci.
Time 5–30 Minutes

Courtesy Mass. Dept. of Public Health

THE TURNER-GOTTEN SANATORIUM

For the Diagnosis and Treatment of Mental and Nervous Disorders

Located on the Raleigh - La Grange Road, five miles east of the city limits. Accessible to U. S. 70 (the Bristol Highway). 53½ acres of wooded land and rolling fields. Equipment new and modern, including the latest equipment for physical and hydro-therapy. Special emphasis is laid upon occupational and physical therapy under the supervision of a trained attendant. An adequate nursing personnel gives individual attention to each patient.

C. C. TURNER, B.S., M.D.
Neuro-Psychiatrist

NICHOLAS GOTTEN, M.D., F.A.C.S.
Neuro-Surgeon

Advancing Years of Happiness

Advancing years of happiness — that's what it means to live with the conveniences and comforts of modern electric home service. For with every passing year new, thrilling aids to Better Living find their way into Mississippi homes. As a basic Mississippi Industry employing more than a thousand Mississippians, this company takes pride in its service — helping housewives to happiness in over 305 cities, towns and communities of the state.

MISSISSIPPI M POWER & LIGHT CO.

IN THIS ISSUE

CARE OF AN OBSTETRICAL CASE
W. T. Pride, M.D. 1

NEUROSYPHILIS
Carl Young, M.D. 5

PSOAS ABSCESS
Nathan B. Lewis, B.S., M.D. 9

IMMUNIZATION AGAINST COMMUNICABLE DISEASES
J. W. Barkley, M.D. 12

EDITORIALS 17

PRESIDENT'S ADDRESS
L. L. McDougal, Sr., M.D. 19

OFFICERS OF NORTH MISSISSIPPI MEDICAL SOCIETY 20

POST-GRADUATE FELLOWSHIPS 20

OPPORTUNITIES AND RESPONSIBILITIES OF MEDICAL LEADERSHIP
Harvey F. Garrison, M.D. 21

COMMITTEE FOR MISSISSIPPI STATE MEDICAL ASSOCIATION 25

DR. R. J. BROWN 26

BOOK REVIEW 26

PARISH MEDICAL SOCIETY ELECTS DR. YOUNG AS HEAD OF BODY FOR THE YEAR 27

PUBLIC HEALTH AND THE VENEREAL DISEASES
Felix J. Underwood, M.D. 28

APPENDICITIS—WHAT WE CAN DO ABOUT IT
C. F. Varner, M.D. 31

SEROLOGICAL TESTS FOR SYPHILIS AND THEIR INTERPRETATIONS
T. W. Kemmerer, M.S., M.D. 34

MISSISSIPPI STATE MEDICAL ASSOCIATION 40

WOMAN'S AUXILIARY 66

WITH OUR ADVERTISERS

American Surgical Supply Company vii
Baptist Hospital, Jackson vi
Bilhuber-Knoll Corp. xx
Blue Mountain College .... inside back cover
Courtesy Cards .... xiii, xiv, xv, and xvi
Duckworth Drug Company xvii
E. R. Squibb and Sons iv
Eli Lilly and Company xii
Fenwick Sanitarium .... back cover
Graduate School of Medicine Louisiana State University Medical Center, New Orleans 26
H. A. Phillips Artificial Limb Company xvii
Hotel Gayoso xx
Hoye's Sanitarium v
Jefferson Standard Life Insurance Co. xix
Lederle Laboratories, Inc., ... ix
Lynnhurst Sanitarium xix
McKesson & Robbins, Inc., ... xvii
Mead Johnson & Company .... inside front cover
Mississippi Engraving Company 27
Mississippi Power and Light Co. x
Parke, Davis and Company i
Robert E. Lee Hotel v
The Dick X-Ray Company ii
The Draughon School of Commerce xviii
The Gwinner-Mercere Company vi
The Wallace Sanitarium xviii
Turner-Gotten Sanatorium x
U. S. Standard Products Co. xxi
Welch's Sanitarium xxi
William P. Poythress and Company iii
53rd Annual Convention of the Mid-South Post-Graduate Medical Assembly viii

'Reticulogen'

(Parenteral Liver Extract with Vitamin B₁, Lilly)

● Recently the treatment of pernicious anemia has been made even more convenient and comfortable by the introduction of 'Reticulogen' (Parenteral Liver Extract with Vitamin B_1, Lilly). Each 0.5-cc. ampoule of 'Reticulogen' is comparable in hematopoietic effect to the ingestion of 3,000 to 4,500 grams (6 1/2 to 10 pounds) of fresh liver. There are 500 International units of vitamin B_1 in the 0.5-cc. ampoule.

In the average uncomplicated case of pernicious anemia a dosage of 0.5 cc. of 'Reticulogen' at intervals of one to two weeks is usually sufficient to maintain an adequate red blood cell response.

Ampoules 'Reticulogen' are supplied in boxes of three 0.5-cc. rubber-stoppered ampoules and in 5-cc. rubber-stoppered ampoules.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Care of An Obstetrical Case[*]

W. T. PRIDE, M.D.[‡]
MEMPHIS, TENN.

THE PRESENT ERA of obstetrical practice was initiated about the year 1560, with the foundation of a school for obstetrics in France, by Ambroise Pare. Since that time, each generation has contributed to the sum of knowledge in this field, though not until recent years has the public awakened to the necessity of seeking the benefit of the information available.

Every physician cannot be a specialist in obstetrics, but those who are called upon to serve in this capacity can certainly learn its fundamental principles, that they may practice it sanely and safely. In the hope that I may add something to what is already well known concerning this branch of medical science, I shall discuss in a general way my own experiences over a period of years.

Inheritance is the most important one factor in the future existence of any individual. Thus, to have been born of a mother who received proper prenatal care is a decided asset to the young expectant mother. Because of our unenlightenment in the past, however, not many present day mothers have had this advantage. There will be little excuse for future generations if every physician will henceforth do his part.

When the patient presents herself early in pregnancy, the physician should inquire, first, as to her past medical history, as well as that of her husband. He should then make a complete physical examination, not only of the pelvic organs, but also of the heart, lungs, teeth, and tonsils. If the teeth are decayed or there is infection in either teeth or tonsils, these matters should be given prompt attention. Blood studies, including Wassermann and Kahn tests, should be made routinely. A specimen of urine should be examined at the first and every subsequent visit. The blood pressure, likewise, should be taken at each visit. In pregnancy, the blood pressure is lower than normal, being approximately 110/70. In the child bearing age it should always be below 120/80; a pressure above 130/80 is dangerous and should be corrected.

Pelvic examination should include an investigation of the size and position of the pelvic organs and a search for any abnormalities. Pelvic measurements should be made to determine the compatibility of the passage and passenger.

Nausea, which usually begins about the sixth week, frequently is a matter of concern. If not treated properly, it may become pernicious and may be fatal to either mother or embryo. It must be borne in mind that in about 75 per cent of cases, pernicious vomiting is psychological and must be treated accordingly. In early pregnancy, however, there is an excess of hydrochloric acid in the stomach, and a diet regulated to counteract this condition, supplemented by alkalis, should suffice to relieve severe nausea. We find that starchy foods, as baked potatoes, lima beans, butter beans, rice, cereal, and toast, and, between meals, pretzels, popcorn, and hard wafers, are best for this purpose. A few patients are benefited by the ingestion of sweets. Carbonated water, as Canada Dry ginger ale, Vichy, White Rock, and Kalack are helpful. Hot water taken between meals is a most effective preventive of vomiting. Ice, on the other hand, is positively prohibited. Acid foods, as canteloupes, strawberries, tomatoes, and fruits of all kinds should be omitted. Solids and liquids should not be taken together, as the liquids cause the solids to be vomited.

When nausea ceases, a normal, well-balanced diet should be resumed. This should include green vegetables, starchy foods, fruit, milk, and milk products. Fruits should be eaten between meals. A moderate amount of meat, bread, eggs, and cereal are permissible. Only lean meat should be allowed, and this not oftener than once daily; moreover, it should never be fried. Sweets, such as candy, syrup, preserves, pies, and pastry, are prohibited, although ice cream, sherbet, stewed fruit, baked apples, and custard are both wholesome and safe. Two glasses of milk, six or eight glasses of water, and occasionally a carbonated drink are necessary to provide an adequate quantity of fluids. A glass of hot water after every meal will insure good digestion.

---

[*] Read before the Central Medical Society, Jackson, Miss., September 7, 1937.

[‡] From the Departments of Gynecology and Obstetrics, University of Tennessee, College of Medicine, Memphis, Tenn.

After the nausea period, calcium in some form should be given to aid in fetal bone development. The better preparation is one containing calcium and phosphorus, as dicalcium phosphate. Calcium lactate or gluconate is not efficient. It is important that the calcium be taken at the proper time in relation to meals, which is not less than two hours before or afterward. If it precedes or follows closely digestion of the regular meal, the combination with bile salts forms a non-absorbable soft soap.

At the end of three months, the patient should begin systematic exercise, consisting of an outdoor walk of from one to two miles daily. This should be taken during the daylight hours, in order that the benefits of the ultra-violet rays and vitamin D of the sunshine may be received. A properly fitted maternity girdle should be worn, and the shoes should not be over moderate height. Long automobile rides are forbidden unless the patient rests at frequent intervals. The diet and exercise should keep the weight of the patient normal, which is less than twenty pounds above that which is customary.

A tub bath should never be taken by the patient during the last month of pregnancy. only a sponge or shower bath is permitted. Many infections, no doubt, have been acquired by the tub bath.

All preparations for the confinement should be made in advance. Needless to say, everything should be perfectly clean, and if possible, sterile. Of course, the hospital patient has this advantage, but with some trouble satisfactory arrangements can be made in the home. If the patient is lying on a feather bed, this should be removed and a hard mattress substituted. If an operative procedure is required, the patient should be placed on the kitchen table. The pubic hairs should be shaved, followed by the usual sterile preparation, care being taken that none of the solution flows into the birth canal. An enema is given unless labor is too far advanced. If the patient cannot void within a reasonable time, the catheter is used. One ounce of 10 per cent neosilvol should always be instilled after the bladder is emptied.

Analgesia should be instituted as soon as labor is established. The present day methods of inducing analgesia represent a long step forward in the progress of obstetrics since Dr. James Y. Simpson, using chloroform, made the first successful attempt to render the patient in labor insensible to her suffering. The story is an interesting one, and I should like to digress here to recount a few of its outstanding events. Dr. Simpson, who was a native of Scotland, was severely criticized by the Scotch Presbyterian Church for his practices with chloroform on the ground that they were sacrilegious, since the Bible stated that child must be born by the suffering of its mother. Queen Victoria brought an end to the opposition by having Dr. Simpson attend her with her last two children, and knighting him for his achievements. After that time, which was about 1847, chloroform was the only drug used until 1903, when Steinbuchel, of Gratz, induced analgesia during labor with scopolamine and morphine. In 1906 Gauss published a report of his "twilight sleep," the "Dammerschlaf" of the Germans. Gauss' method proved dangerous for the baby, but it paved the way for our current technic, which is both safe and effective.

This technic consists, first, in the immediate administration of sodium amytal, 6 gr., per rectum. If this is sufficient for relief of pain, nothing further is given until labor again becomes severe. Morphine 1/6 gr., and scopolamine, 1/200 gr., are then injected hypodermically. Sodium amytal, 3 gr., may be given by mouth to quiet subsequent restlessness. This sedation usually carries the patient through a period of six to eight hours. If the labor is prolonged, the procedure is repeated in smaller doses.

As labor progresses, one should listen at intervals to the fetal heart sounds and make frequent abdominal examinations to determine the progress of descent. When the head has descended until it is barely palpable, dilatation usually is almost complete. This can be determined by careful vaginal examination, which is accomplished by retracting the labia and inserting the gloved fingers by sight. This procedure is preferable to rectal examination, since it permits a better diagnosis and certainly involves less danger of infection, provided one is careful to use sterile rubber gloves and a sterile solution.

When the patient is ready for delivery, after full dilatation, gas or ether anesthetic is administered. If an episiotomy is indicated, this should be done before the head descends appreciably.

Usually, we think of an occiput left anterior or occiput right anterior position as being the normal cephalic presentation. However, from a study of 800 roentgenograms made before labor begins, I have found that 70.6 per cent of all cephalic presentations are either right or left posterior. These studies were made of private cases and closely followed to delivery, when the diagnoses were confirmed. This being true, I now regard the posterior presentation as normal.

For many years the occiput posterior position presented a serious problem, as it caused long labors with attendant head injuries of the infant and severe lacerations of the mother. With the procedure now followed, labor is shortened by more than half, and the baby is saved from injury. Analgesia and anesthesia as described will prevent too powerful contractions and promote dilatation. When sufficient relaxation is obtained, the handle of the forceps is merely depressed and the head pushed up very gently; with this maneuver the body turns easily and the posterior fontanel is in the anterior position. Manual rotation can be used effectively in a certain number of cases.

When presentation is correct or has been properly adjusted, low forceps are applied and delivery is completed. Mucus is removed from the baby's mouth, and the baby is placed upon its right side.

To expel the placenta, immediately following delivery some type of uterine contractant is given hypodermically to stimulate the movements which loosen it from its site and force it outward. We use 1 c.c. of pituitrin for this purpose. Five to fifteen minutes should be allowed for the agent to take effect before any effort is made to assist expulsion. In manipulation, the fundus should be squeezed or pinched, rather than pressed upon inward and downward.

All repairs should be made as soon as the placenta and membrane have been removed, if the patient's condition will permit. Fresh drapes should be placed and further anesthetic given. If laceration is severe, repair should be made in layers. The proper suture material is chromic gut No. 2, forty day single. The repair finished, an antiseptic, such as 5 per cent mercurochrome, should be instilled into the vagina. An abdominal binder should be applied after the entire procedure is complete. Within one-half hour, one dram of fluid extract of ergot is given, and the patient is then placed in bed with the head of the bed slightly elevated.

One may conduct a labor case perfectly and use every precaution, yet the patient may become infected through the carelessness of some assistant or subsequent attendant. I have seen this happen several times. Practical nurses and some trained nurses will sponge the patient's vagina by beginning at the rectum, or, using the same sponge, going back and forth over rectum and vagina. Properly, of course, a sterile sponge should be used and, beginning near the urethra, the sponge should be carried down over the vagina and dropped. This should always be repeated as many times as necessary after urination and defecation during the postpartum period. If there are stitches, 5 per cent mercurochrome should be instilled with a medicine dropper after each cleansing until the stitches have thoroughly healed.

After the effects of the anesthetic have subsided, the patient is given a regular diet. She is allowed to turn upon either side at once, to have back-rest after four days, and to sit in a chair on the tenth or twelfth day. A tub bath is permitted at three weeks. The doctor should be consulted for a final examination at the end of six weeks.

In this connection, I wish to call your attention to one of the most important procedures in modern obstetrics: the necessity of feeding the patient in long labor. At the University of Tennessee we have conducted a series of experiments to determine what happens in the body of patients during long labor. From time to time we had seen patients whose labor had been protracted die suddenly upon being given an anesthetic. These deaths were attributed to heart failure or cardiac thrombosis. Our first experiments were carried out upon dogs. A number were purged and starved until they were in a state of profound acidosis, then were given an anesthetic of ether, chloroform, or gas. Almost every one of the dogs died. Others, to which an intravenous injection of sodium bicarbonate had been given prior to the anesthetic, apparently suffered no ill effect. Occasionally, an acidosis was produced by an intravenous dose of 2 per cent lactic acid. Thereafter we estimated the carbon dioxide content of the blood of all patients in long labor and found almost invariably that an acidosis existed. If these patients were fed and given fluids during labor, however, the carbon dioxide content of the blood remained approximately normal.

SUMMARY

1. Patients should present themselves early in pregnancy for instructions in prenatal care.

2. Diet, exercise, and routine methods of hygiene should be explained to the patient by the physician.

3. All preparations for delivery, whether in home or hospital, should be made in advance. Everything should be as sterile as possible.

4. Frequent abdominal examinations should be made during labor. A few vaginal examinations are also necessary.

5. Analgesia and anesthesia should be induced in every case.

6. In all long labors, the patient should be fed and given fluids to counteract any abnormality of the alkali-acid ratio of the blood.

1460 Madison Avenue

◆

Neurosyphilis*

CARL YOUNG, M.D.
(Fenwick Sanitarium)
COVINGTON, LA.

AT WHAT stage does the nervous system become invaded by the spirochete? Moore[1] states, "If abnormalities in the cerebrospinal fluid may be accepted as criteria of early central nervous system invasion by syphilis the comparatively recent studies carried out by many observers show that such an invasion takes place in from 20 to 30% of all patients at the time of the first generalization of the disease. Earlier clinical surveys of large numbers of syphilitics, notably those of Mettauschek and Pilcz[2], demonstrated that approximately the same or perhaps a somewhat smaller percentage of untreated or badly treated patients will develop clinical neurosyphilis. These facts have led to the assumption that neurosyphilis of whatever type practically always originates during the first few months of infection."

Fildes, Parnell and Maitland[3] "As a result of an examination of six hundred and twenty-four syphilitic men, in the early stages of the disease found 18 per cent which gave undoubted signs of abnormal conditions in the central nervous system."

According to Fordyce[4], "Infection of the nervous system probably takes place in the secondary stage."

Kaliski and Straus[5] state that, "Cerebrospinal syphilis involving one or all of the structures of the nervous system is a disease essentially of the younger individuals and occurs comparatively soon after infection."

Wile and Stokes[6] are of the opinion that the nervous system may be and probably is involved before there are other evidences of the hematogenous spread of the treponema pallidum.

Tilney[7] states, "It is possible that neurosyphilis is but part of a generalized systemic infection."

As to the Wassermann test of the blood and spinal fluid the following table from Stokes is presented:

Fig. 843

Page 1120, Stokes, Modern Clinical Syphilology, 2nd. Edition, W. B. Saunders and Company, Philadelphia

FREQUENCY OF NEGATIVE BLOOD WASSERMANN TEST IN NEUROSYPHILIS

	Percent
1. Early cases	5-8
2. Late cases	14-41
3. Abnormal fluids (WR) with negative bloods	34
4. Negative blood Wassermann in neurosyphilis in general	25-40
5. Negative blood Wassermann in tabes dorsalis (after first decade)	30-40
6. Negative blood Wassermann in paresis	5-18

These figures are based on statements by Fordyce and Rosen, Esquchen, Sarbo, Gennerich, Kafka and Nonne, Stokes and McFarland, Stokes and Brown, Stokes and DesBrisay.

As to the symptomatology, which is most varied, the following quotation from Jelliffe and White is very appropriate: "Neurosyphilis is so kaleidoscopic in its clinical manifestations, that the significances of the treponema pallidum infection as a primary etiological factor in the production of nervous disorders is frequently overlooked. The physician with his eye riveted upon a clinical picture, be it an amyotropic lateral sclerosis, a failing memory, a persistent nervous weakness, an isolated cranial nerve palsy, a progressive muscular atrophy of the arm muscles, a protracted neuralgia, a failing eye-sight, a progressive deafness, or a profound metabolic disorder, may **readily overlook the fact that syphilis is the unique cause for these different syndrones."**

I quote further: "There is no field in medicine wherein similar disease pictures may arise from so many different causes as in the domain of the nervous system. Nor, on the other hand, where a single etiological factor may give rise to so many dissimilar pictures."

---

*Read before St. Tammany Parish Medical Society, Dec. 17, 1937.

Throckmorton states: "In any unexplained group of symptoms referable to the nervous system, syphilis should always be thought of as a possible etiologic factor until ruled out by a lack of clinical and serologic evidences."

Walter Freeman states: "Mental changes are apt to consist of defects of memory and judgment, rather than in hallucinations, and delusions are present only in certain cases—**irritability, personality changes, insomnia and symptoms of neurasthenia may be the earliest symptoms.** The alteration of the individual's personality is much more important than the condition at any other time."

As pneumonia bears the title of "Captain of Death" syphilis bears the title of "The Great Masquerader" because it may simulate or resemble any disease or symptom complex. It is well to bear in mind the saying of Sir William Osler: "Know syphilis in all its clinical manifestations and all things clinical will come unto you."

CASE REPORTS

CASE 1. Lady, age 63, housewife. Came in with diagnosis of neurasthenia and excessive fatigue, pains in the legs and arms which she thinks is due to neuritis, has anxiety regarding her breathing and is afraid the time will come when she cannot breathe. Occasionally on walking she feels as though she is falling to the left, or, if someone is walking on her left side she will bump into him. Sleeps fairly well.

FAMILY HISTORY: Mother was diagnosed as having locomotor ataxia several years befor her death at seventy-eight from apoplexy.

PAST DISEASES: Measles, scarlet fever, congestive fever, chicken-pox as a child. Influenza (severe case in 1918.)

OPERATIONS: Hemorrhoids and retroversion 35 years ago, chronic appendix and right ovary removed at age of twenty-eight. Gallbladder drained and adhesions broken down 1916. Gallbladder removed 1925. Tonsils removed 1926. Three teeth removed 1927. Intestinal obstruction 1928. Has been on special diet for the past ten years. Two years ago she had a period of mental confusion that lasted several hours.

PSYCHIATRIC OBSERVATION: Revealed an increased emotional condition—good insight and judgment.

NEUROLOGICAL: Pupils: react to light and accomodation—some irregularity in the outlines; ciliospinal reflex, present and active; consensual reflex, present and active; cranial nerves, right facial weakness—patient was not conscious of condition; speech, normal; station, slight swaying with a tendency to fall back and to left; tremors, very fine and rapid of eye-lids and hands; coordination, left hand always lower than right; superficial reflexes, present and active; deep reflex, slight exaggeration—definitely positive Babinski on right foot; sensation, decreased bone conduction on left side.

LABORATORY EXAMINATIONS: Blood, hemoglobin 85%; remoglobin index 0.8; R. B. C., 4,800,000; W. B. C., 5,000; polymorphonuclears, 62; small lymphocytes, 62; large lymphocytes, 2; eosiniphiles, 17; malaria, none.

BLOOD CHEMISTRY: Sugar 80 mgs. per 100 cc.; non-protein nitrogen 33 mgs. per 100 cc.; urea nitrogen 16 mgs. per 100 cc.; uric acid 3.7 mgs. per 100 cc.; creatinine 1.2 mgs. per 100 cc.; calcium 11.5 mgs. per 100 cc.; phosphorous 4.0 mgs. per 100 cc.

URINE: Essentially negative.

STOOL: Ova of Trichuria trachuria (whip worm).

SPINAL FLUID EXAMINATION: Cell count, zero; differential cell count, all lymphocytes; globulin, positive (xx); sugar 47 mgs. per 100 cc.; total proteids, 22 mgs. per 100 cc.; colloidal gold test, negative (0000000000); Wassermann test, original method, positive (xxxx); Kolmer modification, positive (xxxx) with 0.3 cc., positive (xx) 0.2 cc.

DIAGNOSIS: Neurosyphilis.

CASE 2. Male, age 44, merchant. Has been nervous for several years, lately condition has became exaggerated, blue and depressed and cries at times, violent explosions of temper at times, has been under treatment for two years and on special diet. On one occasion spent two weeks in hospital for observation and treatment.

PAST DISEASES: Influenza 1918, primary infection about twelve years ago, given five shots and discharged as well, has had six blood Wassermanns and all were negative.

PSYCHIATRIC OBSERVATION: Revealed an individual that was blue and depressed, complaining of being nervous and not able to sleep, no delusional formation or hallucination, insight was fair, judgment beginning to show impairment.

NEUROLOGICAL EXAMINATION: Pupils, unequal in size, irregular in outline, right pupil does not react to light, left only a slight bit, accomodation present; tremors, medium fast of hands, tongue and eye-lids, also facial tremors; station, slight swaying but no Rhomberg; deep reflexes, definitely decreased but present.

LABORATORY EXAMINATION: Blood, hemoglobin, 85%; hemoglobin index, 1.0; R. B. C., 4,100,000; W. B. C., 6,250; polymorphonuclears, 74; small lymphocytes, 15; large lymphocytes, 3; eosiniphiles, 8%; malaria, none; anisocytosis, slight; Wassermann test, original method, negative, Tschernogubow modification, negative, Kolmer modification, negative.

URINE: Essentially negative.

SPINAL FLUID EXAMINATION: Cell count, II; differential cell count, all lymphocytes; globulin, positive (x); sugar, 60 mgs. per 100 cc.; total proteids, 22 mgs. per 100 cc.; collodial gold, 3322221100; Wassermann test, original method, positive (xxxx) with 2 cc., negative with 1 ccc., Kolmer modification, negative with 0.3 cc., insufficient fluid for other dilutions.

DIAGNOSIS: Neurosyphilis.

CASE 3. Male, age 57. Brought to the Fenwick Sanitarium because of liquor drinking, has drunk practically all of his life but moderately and never steadily, would get on occasional sprees at conventions, etc., but his drinking did not interfere with his business and social life. About one year ago he began to become cross and irritable with explosions of temper, would start drinking and leave home, could not be found for several days and later would be located in some distant city. These episodes have been frequent lately, his nervousness has increased, the family finally brought him to the Sanitarium. On admittance he was very intoxicated. Observation for the next ten days showed a poor retentive memory, poor insight and suspicious delusional trends, his reasoning was defective and at times was silly and childish, judgment poor.

NEUROLOGICAL EXAMINATION: Pupils, slightly irregular but reacted to light and accomodation, opthalmoscopic examination showed a beginning pallor of both disc; station, practically normal; coordination, fair; reflexes, exaggerated; patient denied venereal infection until told that while intoxicated he had admitted infection thirty years before. This ruse worked and he admitted infection twenty-seven years before, had received treatment, had one child affected with nerve deafness from congenital infection.

LABORATORY EXAMINATION: Hemoglobin, 85%; color index, 0.9; R. B. C., 4,950,000; W. B. C., 9,000; polymorphonuclears, 64; small lymphocytes, 29; large lymphocytes 1; eosiniphiles, 7%; malaria, none.

URINE: Essentially negative.

WASSERMANN TEST: Original method, negative, Tschernogubow modification, negative; Kolmer modification negative.

SPINAL FLUID EXAMINATION: Cell count 1; differential cell count, all lymphocytes; globulin, positive (xxx); sugar, 83 mgs.; total protein 30 mgs.; colloidal gold, negative (0000000000); Wassermann test, original method, negative with 2 cc. of fluid; Kolmer modification, positive (xxxx).

DIAGNOSIS: Neurosyphilis with early clinical paresis.

CASE 4. Male, age 31. Entered because of nervousness and because of periodical sprees which would last three to seven days. He had lost three good positions because of sprees. The patient was anxious to find out the cause of his trouble and stated, "There is something wrong and I want you to find out what the trouble is." The history showed a marked alcoholic amnesia when drinking and was very violent and abusive—when sober, was well behaved and very considerate.

NEUROLOGICAL EXAMINATION: Negative except for a marked exaggeration of reflexes of lower extremity. He denied venereal infection.

LABORATORY EXAMINATION: Hemoglobin, 90%; hemoglobin index 0.9; R. B. C., 5,000,000; W. B. C., 6,000; polymorphonuclears, 62; small lymphocytes, 38; large lyphocytes, 8; eosiniphiles 1; basophiles 1%; malaria, none.

URINE: Essentially negative.

WASSERMANN TEST: Original method, negative; Tschernogubow modification, negative; Kolmer method, negative.

SPINAL FLUID EXAMINATION: Cell count 22; differential cell count, all lymphocytes, sugar, 56; total protein, 30 mgs.; colloidal gold, negative (0000000000); Wassermann test, original method positive (xxxx) with 2 cc., negative with 0.5 cc.; Kolmer modification, positive (xxxx) with .3 cc., positive (xx) with .2 cc., positive (x) with .1 cc.

After the report on the spinal fluid was shown him he readily admitted an infection ten years previous and stated he had received ten "shots." Since that, he has had nine blood Wassermanns and all were negative.

DIAGNOSIS: Neurosyphilis.

In conclusion I wish to acknowledge with thanks the cooperation of Doctors W. H. Harris and A. V. Friedrichs of New Orleans and their assistant Miss Lucille Montz as they are in charge of our clinical laboratory.

CONCLUSIONS

1. A careful neurological and psychiatric examination will often lead to the suspicion of neurosyphilis or organic brain disease.

2. Spinal fluid examination will differentiate between syphilitic and non-syphilitic disease of the nervous system.

3. If the 1st and 2nd conclusions are carefully observed many cases of so-called "symptomatic" neurosyphilis will be ruled out.

4. Blood Wassermann reactions in neurosyphilis are negative in from 25 to 40 percent of cases.

REFERENCES

1. Moore, Joseph Earle—Archives of Dermatology and Syphilis — 4:55 — July 1921.

2. Mattauschalk and Pilcz — Ztschr. f.D. ges. Neurology u Psychiatry 4-697, 1910, 1911 — 15:608, 1913 quoted by Moore in Reference No. 1.

3. Fildes, Parnell and Maitland.

4. Fordyce.

5. Kaliski and Straus.

6. Wile and Stokes.

7. Tilney Frederick — Nelson's Loose Leaf Medicine, page 185, Vol. No. 6, Chapter 10.

Reference Nos. 3, 4. 5 and 6 are quoted by Tilney in Nelson's Loose Leaf Medicine.

8. Jelliffe, Smith Ely and White, William A, Text book on Diseases of the Nervous System, page 987, Edition of 1935—Lea and Febiger, Philadelphia.

9. Throckmorton, Tom Bentley, Syphilis of the Nervous System, American Journal of Syphilis, 11-215-225, April 1927.

10. Freeman, Walter — The Diagnosis of Neurosyphilis, Clinical Medicine and Surgery 40:344, July 1933.

Psoas Abscess*

NATHAN B. LEWIS, B.S., M.D.
VICKSBURG, MISS.

ALL PSOAS ABSCESSES are not of tubercular origin. Neither do they all occur as a disease of the spine, nor do they all originate from nearby foci. The psoas abscess may form within the psoas muscle from without any apparent cause. There may be a history of injury, tonsillitis, furunculosis, endocervicitis, cold or any other number of minor ailments, and with these conditions there is the possibility of a number of pyogenic organisms floating around in the blood. Injury or even a slight pulling of the psoas muscle may cause hemorrhage, with blood clot and invasion from the blood stream into this muscle. L. D. Long suggests that the infection is either hematogenous as described or lymphogenous.

In a careful review of the literature to date it is very lacking on the subject. The total number being reported is something like fifty-two, and those reported numbers of them do not state whether or not they were of tubercular or pyogenic origin. It would seem that this is a rare condition—but it is NOT and occurs frequently, is not severe in most cases and the body is able to throw off the infection. The most direct reference in books of surgery was that quoted by Long from Ashhurst's Surgery which contained only a few lines but stated that traumatic iliac abscess deserves recognition as a clinical entity.

As these abscesses are of pyogenic origin it is naturally assumed what organisms would be found. In all instances of reports the following organisms were present: staphylococci, general aureus, coli and streptococci and in one case reported by Baer, Bennett and Nachlas, pneumococci. In my personal cases were found, on culture, staphyloccus aureus.

Both sexes seem to be affected but the literature records more males than females. It seems to have a particular affinity for young males. Barney found fourteen males to four females.

In the classical case there seems to be a definite symptom complex, yet there are several conditions with which it may be confused. The main symptoms consist of severe continuous pain in groin or loin of the affected side (this being due to drainage downward) later the pain may reach to the inner side of the crest of the ileum and later extend to the back. In addition to the pain and tenderness described there are signs of sepsis and loss of weight. The leucocytes are high and the temperature runs the typical septic type. The most pronounced single symptom is inability to extend the thigh. The knee moves freely, but when one tries to extend the thigh the patient complains of severe pain. There is no history of night cry, and the urine is usually free from pathology and there are usually no urinary symptoms.

Repeated x-rays of spine and pelvic bones are negative, and Mantoux' test is negative.

Differential diagnosis is sometimes not so easy unless a mass is palpable in the loin. It may be confused with perinephritic abscess, but these cases show definite renal disease. The tuberculous type of psoas abscess shows changes in the bones, likewise osteomyelitis. On the right side, appendicitis has been misdiagnosed. In one of Barney's cases a diagnosis of psoas abscess was made, incision found no pus, the incision was packed and in a few days drainage which came from the wound was fecal. It was thought that they were dealing with a ruptured appendix, but on autopsy the appendix was found normal, there was a gangrene and necrosis of the psoas muscle with thick inspissated pus and erosion into the intestine through the peritoneum.

In correspondence with Dr. Henry Boswell of the State Sanatorium he reports: "We do not have a single case of psoas abscess, and I do not think I have seen a case for the last three or four years. A number of years ago we used to see them fairly frequently, but so far as our records show they seem to have almost disappeared."

---

*Read before the Issaquena-Sharkey Warren Counties Medical Society, Oct. 12, 1937.

Treatment is simple, mere incision and drainage cures all cases if they are found early. Late manifestations are treated in the same way only the outlook is not so good when gangrene of the muscle has taken place.

I wish to report two cases of psoas abscess of pyogenic origin which I have seen in the past six months.

CASE I

(History)

Colored male age six years, attended school one year. His past history is entirely negative. He had a normal birth. Has not had any of the childhood diseases. Was born in Chicago, Ill., moved to Hermanville, Miss., about two years ago.

His father is thirty-five years old and his mother is twenty-five. He has three brothers and one sister living and well. The sister had pneumonia last year but is all right now. There is no history of tuberculosis in the family, nor is there any history of contact. No history of cancer in the family, and the mother and father both deny having ever had any venereal disease.

The patient began to complain on August 17, 1937 of a slight pain in his left side. There was positively no history of accident. He still ran around and played. A few days later the pain became worse and a swelling was noticed in the left loin. The patient was then taken to a doctor who suggested giving enemas, until the bowel was cleaned. This was done for one week without results. At this time the leg was drawn upon the abdomen and movement caused pain. During this time the patient vomited at intervals, had high fever, and began to loose weight. It was at this time he was brought to me for treatment. He has not had a cold for over a year. He has had no boils or bad skin infection. During the whole time there were no exaggerated pains at night and no 'night cry'. Before taking sick he was eating well and gaining weight. His bowels were regular.

(Physical Examination)

General: Examination shows a negro male age six years, lying in bed, apparently acutely ill, showing signs of loss of weight but fairly well developed. Temp. 101. Pulse 80. Resp. 24. B P 110/70.

E. N. T.: Tonsils enlarged, moderately red and inflamed.

Heart: Sounds clear, rhythm and rate regular no murmurs.

Lungs: Breath sounds clear, no rales and no rubs.

Abdomen: Soft, liver and spleen not felt, there is a small mass in the left loin, the mass is soft and fluctuating, there is no other mass palpable, no tenderness.

Extremities: Reflexes are active, no oedema, the left leg is flexed upon the abdomen, and extention causes severe pain.

(Operation)

Under ether anaesthesia, an incision was made just medial to Ploupart's ligament and blunt dissection down to the psoas muscle. There was an immediate discharge of thick pus. A drain was inserted and the wound left open. Dressings.

(Laboratory)

Kahn Test and Eagle Flocculation Test: negative.

Mantoux Test: negative.

Blood: Hbg. 87 per cent: Color Index: 1.11: Erythrocytes: 3,960,000: Leucocytes: 9.600: Small Lymphocytes: 24: Large Lymphocytes: 9: Neutrophils (mature) 52: Band: 14: Eosinophils: 1.

Urine: Albumin: 3 plus. Globin: 4 plus: few microscopic blood cells. Otherwise negative.

Fluid from abscess cavity: Color: red; appearance: cloudy; Leucocytes: too thick to count. Dif.: Large Leucocytes: 6 per cent; Small Leucocytes 16 per cent; Polys: 78 per cent; Albumin: 3 plus; Gloubin: 4 plus. Stains many pus cells. Polys. Cultures incubated 48 hours moderate growth, many gram positive Staphl. (Aureus)

(Progress)

The patient made an uneventful recovery, the drain was removed on the fifth day and the wound healed on the tenth day. I have the patient here to present to you, showing you that at the present time he is in excellent condition.

CASE II

Colored male age 4 years, had a normal birth, has not had any of the childhood diseases. Was born in Mississippi and lived here since birth. He is the only child. His father and mother work on a farm. There is no history of tuberculosis in the family. There is no history of cancer in the family.

The patient entered the hospital on the 26th day of April, 1937 with the history that two weeks ago while playing he had fallen off the porch and hurt his left side. He cried a little at the time, but ran off later and began to play. The patient did not complain until four days ago when he would come to his mother crying about a pain in his left side. He was taken to a doctor near his home who took an x-ray to see if any bones had been broken. Not being able to find a fracture the doctor sent the patient to the hospital.

His bowels have been regular and his appetite has been good up to the time of present illness. During the time of the present illness his bowels have been normal but the patient would not eat very much. He has had no skin infections or boils. Has had occasional colds.

(Physical Examination)

General: Colored male age four years, lying in bed apparently acutely ill, showing signs of loss of weight. He is fairly well developed. T. 103. P. 130. R. 25.

E. N. T.: Tonsils enlarged, not acutely inflamed. No cervical glands.

Lungs: Breath sounds are clear, no rales or rubs.

Abdomen: Soft, liver and spleen not felt. There is no small palpable mass over left loin, the mass is soft and tender. No other masses palpable.

Extremities: There is no oedema, reflexes are active. The left leg is held flexed upon the abdomen and extension causes pain.

(Operation)

An exploratory puncture was made at the point of fluctuation, when pus was found and incision was made just to the inner side of Ploupart's and blunt dissection to the psoas muscle, where an abscess was found and discharge of an abundance of thick pus. A drain was inserted and the wound left open. Dressings.

(Laboratory)

Blood Kahn and Eagle Flocculation test: negative.

Blood: Leucocytes 18,000. Differential count: Small lymphocytes 21.5; large lymphocytes 4.5; Neutrophils: mature 57; bands 17. Malaria; rare moderately ripe terian rings (1 to many oil immersion fields). Erythrocytes 3,480,000. Hbg. 85 per cent.

Urine: negative.

Culture from abscess: color: yellow; appearance: cloudy; differential count: small lymphocytes 5 per cent; polymorphonuclears 95 per cent; leucocytes: fluid too thick to count.

Stains: Many pus; numerous gram positive diplococci 'not encapsulated'; culture incubated 48 hours. Profuse growth; many gram positive staphlococci. (Aureus.)

(Progress)

The patient made an uneventful recovery and left the hospital June 7, 1937.

(Summary)

Psoas abscess of pyogenic origin is a definite clinical entity. The pathology and symptomatology were discussed and two cases presented.

BIBLIOGRAPHY

Barney, J. D., Psoas Abscess of Pyogenic Origin. N. Eng. J. Med., 1933, ccviii, 977-981. May 11.

Behrman, S.: Non-Spinous Psoas Abscess; Four Cases at a Children's Hospital. Lancet, 1930, ii 297-298, Aug. 9.

Gardner, W. F.: A Case of Psoas Abscess Complicated by Appendicitis With Report of Case. Kentucky M. J., 1921, xix, 833, Dec.

Long, L.: Acute Non-Tuberculous Ilio-Psoas Abscess. South. M. J. 1925, xviii, 198-202, March.

Tyler, G. T., Jr.: Non-Spinal Psoas Abscess. J. South Carolina, M. Ass'n., 1927, xxiii, 466-469.

◆

Immunization Against Communicable Diseases*

J. W. BARKLEY, M.D.
BELZONI, MISS.

HEALTH is one of the greatest blessings of mankind; indeed, it is an essential to human progress. Therefore, how to gain it and how to retain it, forms one of the pressing problems of the race of mankind. Yet rightly understood, health is a precious gift from the Father of all—and we, many of us, do not appreciate it until we fall ill.

You can go into any cemetery and see on many tombstones "Born 1852—Died 1900" or something similar. This is the brief biography of a man's first life—his physical life. At birth most of us inherit a strong, healthy body; or if we don't, it is usually possible to develop one, provided we are not deformed. But none of us lives very long before we realize that we must take care of the delicate human machine if we are to live for any length of time and if our physical life is to be a happy one.

Only a few of medicine's every-day disease-fighting weapons were in existence 100 years ago. The hospital even 100 years ago was a fearsome place. Scarlet fever cases were placed side by side with those suffering from influenza and lockjaw. Those who died often were allowed to remain for as much as three hours beside their living comrades. Patients died faster in hospitals than at home.

The primary source of infection of most of the communicable diseases is the human case or carrier but in certain diseases, such as plague or some types of food infection, animals may constitute the reservoir of infection or the immediate source from which the infection is transferred to man.

While the infective agents of many of the communicable diseases may be acquired from either carriers or cases, the relative importance of carriers and cases as sources of infection varies according to the disease. The case to case transference of infection without the intervention of a carrier is the usual route of transmission in the spread of such diseases as measles, mumps, and the venereal diseases. In a population, the case to carrier and carrier to carrier, or carrier to case, is normally the channel by which the casual organisms of such diseases, as meningococcus meningitis, primary pneumonia, diphtheria, or scarlet fever are transmitted.

A carrier of a disease is a person in whose tissues the causative organisms of the disease are being propagated and who is discharging these organisms from the body, but who is at the same time, apparently healthy and does not exhibit clinical manifestations of the disease in question. The organisms may be conveyed from the body in the discharges from the respiratory tract or in the feces or urine and elimination may be constant or intermittent.

Carriers are classified as health, incubationary, and convalescent, and these types are again classified for administrative purposes as chronic and temporary.

A healthy carrier is one who throughout the known carrier period presents no symptoms of the disease. The organisms may be originally acquired by contact with a case or another carrier of the infection or they remain and continue to be propagated in the tissues after an attack of the disease. A healthy carrier is also known as a passive carrier, and the carrier state usually occurs in a person who is immune or resistant to the disease.

Among the diseases which are known to be transmissible by healthy carriers are the following:

Typhoid fever
Pneumonia
Cholera
Paratyphoid fevers
Meningococcus meningitis
Dysentery (bacillary and protozoal)
Diphtheria
Scarlet fever

While the causal agent of poliomyelitis is not known, the results of epidemiological studies indicate that this disease is also transmitted by healthy carriers.

---

*Read before the 26th Semi-Annual meeting of the Delta Medical Society, Greenwood, Miss., Oct. 13, 1937.

Incubationary carriers are persons who, while in the incubationary stage of a communicable disease, discharge the infective organisms of that disease in such a manner as to transmit them to others. The incubationary carrier is actually an early case of the disease, and many of the communicable diseases can be transmitted by incubationary carriers. This type of carrier is of particular importance in the transmission of those diseases which have a comparatively long incubation period, such as measles, mumps, smallpox, and typhoid fever.

Convalescent carriers are those who continue to discharge the infective organisms of the disease during the convalescent stage of a communicable disease and for some time after clinical recovery from the disease.

Convalescent carriers are of particular importance in the transmission of diphtheria, meningococcus meningitis, typhoid and paratyphoid fevers, and bacillary and amebic dysentery.

A temporary carrier is one in which the carrier state disappears within a relatively brief period of time, usually any length of time less than three months after contact with the source of the infection or subsequent to recovery from the disease. The majority of the convalescent carriers and also healthy carriers who have obtained their infection by contact are temporary carriers. Incubationary carriers are necessarily temporary carriers.

A chronic carrier is one in which the carrier state persists for a long period of time which, for administrative purposes, is considered as more than three months. Chronic carriers are usually healthy carriers who become such following an attack of the disease which may or may not have been diagnosed. Occasionally an immune individual may become a chronic carrier by contact with a case or carrier. Chronic carriers are important factors in the spread of typhoid fever. They are also concerned in the spread of other diseases such as diphtheria and meningococcus meningitis.

The primary objective of all disease control measures is to promote efficiency by preventing a communicable disease from attaining such prevalence that it will interfere with the progress of the community. Measures designed to attain this objective may favor the production of secondary cases within a relatively small exposed group, but in so doing afford protection for the major portion. This is true in the operation of a group quarantine of contacts of a primary case or in the employment of detention camps for the observation of recruits. Any and every procedure, the results of which will promote the welfare of the community should be employed.

Control of the source of the infection is effected by control of the case, suspect, carrier, or contact. It is accomplished generally by the isolation of the cases, carrier, or suspect, and by quarantine of contacts. The transference of infection from the source to susceptible persons is prevented or inhibited by control of the transmission agency, as by insect eradication or purification of the water supply. Susceptible persons are protected against a disease by being prevented from coming in contact with a source of infection or an infected transmitting agency, and by immunization.

The control of a communicable disease may be accomplished by the control of only one of the basic factors; that is, by control of either the source of infection or the transmitting agency, or by the protection of susceptible persons. Usually the control of more than one of these basic factors is indicated and in the control of certain diseases, such as typhoid fever, measures are available for the control of the source of infection and the agencies of transmission, and for the protection of susceptible persons by immunization.

Cases, carriers, or suspects may be placed in isolation for treatment and observation. Isolation serves to separate the source of infection from the transmission agencies; it may be by groups or by individuals. Group isolation is practiced in the hospitalization of malaria cases in screened, mosquito-free buildings to prevent the transmission of the infection to mosquitoes, although the cases are not separated one from the other, or from patients with other diseases. A number of cases, carriers, or suspects of the same disease may be isolated as a group. A patient having a disease transmissible by contact can be isolated in a ward with patients having other diseases, provided measures are taken to prevent cross infections. In the control of contact diseases, a single case may be isolated as an individual to prevent the transmission of the infection by droplet infection.

Quarantine is employed in the separation of a group containing individuals who are actual or potential sources of infection for the purpose of preventing the transmission of the infection. Usually it is employed as a method of preventing the spread of disease by incubationary carriers or by mild or missed cases, and for the purposes of facilitating the detection of secondary cases or carriers and restricting their occurrence to a single group. Rarely an entire command may be quarantined to prevent the spread of infection from the command to the civilian population or vice versa.

The group quarantine method is commonly employed in the control of diseases which tend to spread from case to case without the intervention of remote healthy carriers or of a transmitting agency which would not be affected by the quarantine. Measles and mumps are examples of diseases which under proper conditions can be controlled by group quarantine. Group quarantine is not an effective method of preventing the spread of such diseases as meningococcus meningitis, in which remote healthy carriers are common and there is a consequent tendency towards sporadic prevalence. Nor is group quarantine indicated where the source of infection is outside the group in which the primary case occurs and the infection is transmitted by an agency generally common to the entire community, as in the control of an intestinal disease transmitted by food, or an insect-borne disease.

Group quarantine has the disadvantage that it does not prevent, but, in fact, favors the the continued exposure and infection of all susceptible members of the quarantined group. Group quarantine is not an efficient control measure when the infection is wide-spread through a community, but where the prevalence is sporadic or only a few cases have occurred, it affords a means of limiting the occurrence of the disease to the quarantined group.

The control of disease through the control of transmitting agencies is accomplished by so modifying certain environmental factors as to prevent the transmission of the causative agents of disease. This method of disease control involves the purification of water supplies, the control of disease transmitting insects, the proper disposal of infected wastes, or the correction of housing defects.

Immunization is practiced routinely in the control of typhoid and paratyphoid fevers, diphtheria, and smallpox. Artificial immunization does not confer permanent, absolute immunity to the extent of rendering a group completely nonsusceptible to the disease concerned. Thus while immunization against typhoid and paratyphoid fevers will render the greater proportion of a group immune for the time being against a moderate dose of the infection, it does not protect all individual members of the group against continued massive doses nor does the immunity last for an indefinite period of time without further vaccination. Artificial immunization should be employed in the control of these diseases in conjunction with and for the purpose of augmenting the control of transmitting agencies. In the control of smallpox, artificial immunization is the only control measure of practical value and must be repeated at intervals to maintain a protecting degree of immunity.

Early or prophylactic treatment may be employed in the control of certain diseases to prevent the development of the disease. Malaria may be controlled by prophylactic treatment with quinine during a period of exposure to the bites of infected mosquitoes, or venereal disease can be prevented by the use of chemical prophylaxis immediately after exposure to infection.

One of the chief ways of combating disease germs in individual cases is by aiding and intensifying the natural resources of the patient. In the event of bacteria making an entry—through a scratch in the skin, for example—phagocytes are rushed at once to the spot. They attempt to surround and devour the bacteria. Some kinds of germs are more readily attacked than others, and this is presumably an important factor in determining virulence. For example, guinea-pigs and mice are very susceptible to anthrax, while dogs are much less so; and it has been shown that for some reason the phagocytes of the former animals do not attack the anthrax bacillus, while those of the latter do. But besides this actual physical battling of invaders with defending cells, there is a subtler warfare of chemical products in the blood-stream which is of great importance from a medical point of view, and which we must now consider.

One of the most striking protective devices in the body is its ability to respond chemically to foreign substances introduced into the blood. (Some aspects of this ability were discussed before.) In the matter of bacteria, the body manufactures "anti-toxins" which neutralize the toxins which they secrete and rob them of their sting; it attempts, for example, to withstand the chemical assaults of the diphtheria bacillus by producing a diphtheria anti-toxin. Moreover, these anti-toxins are specific. Diphtheria anti-toxin is no good against tetanus toxin, and if after recovery from diphtheria the patient is attacked by tetanus he has to start the business of anti-toxin formation all over again. Where these substances are produced is at present not clear. There is some evidence that that versatile organ, the liver, plays a considerable part in their manufacture.

Not only does the body respond in this way to toxins; apparently the materials of which the surface membrane of bacteria are made can, in many cases, stimulate chemical retaliation of this kind. Various kinds of substances are turned out to combat whole bacteria. Some, called agglutinins, make them sticky so that they adhere together embarrassingly in clumps, others, called lysins, make them break up and dissolve, and so forth. The strongest substances are the so-called opsonins, which make the bacteria more attractive to phagocytes and thus assist the latter in their perpetual policing of the blood vessels, the streets of the body-state. In this way, by living phagocytes and chemical anti-bodies, the invaders are resisted and very often overcome.

Now in many cases the chemical anti-bodies that we have just been considering do not disappear from the blood when the disease is over. Once it has made them the body keeps its weapons, for a time at least. This is why, after an attack of chicken-pox or measles, for example, a person is immune to that particular disease for some years. The anti-bodies are still circulating in the blood. At the price of suffering the disorder, immunity to its future assaults has been acquired.

Upon these facts one of the most important branches of modern preventive medicine is based. With many contagious diseases, an attack confers subsequent immunity to that same disease, often for a period of years; so that if we can give a person a mild attack, we can make him or her immune.

To give a simple example. Pasteur found that if anthrax bacilli were kept at a high temperature they lost much of their virulence. If these weakened parasites were injected into a sheep the animal underwent a mild attack of anthrax from which it easily recovered. After that it was immune to the attacks of anthrax bacilli even if they were of natural undiminished activity. The defensive substances were preserved in its blood.

A more important application of these principles is vaccination against smallpox. Until about a hundred years ago this disease was an extraordinarily widespread scourge. In many countries practically everybody went through it, some it killed, some it branded, some it left comparatively unharmed. In England, in the eighteenth century, probably three or four people in every thousand died of smallpox every year. But it was noticed very early that an attack of smallpox conferred immunity in future. If the sufferer recovered, he did not contract the complaint again. It used to be common in the East for people to infect themselves deliberately from a sufferer who had smallpox in a mild form, in order to avoid getting it badly—a practice that found its way into Europe in the eighteenth century. In 1798 the physician Jenner discovered a safer method of securing protection. There is a disease of cows that is rather like smallpox, and Jenner found that if a person is inoculated with this cowpox he gets a comparatively harmless disease, which is not infectious, and which leaves him immune not only to cowpox but to smallpox as well. Apparently the two diseases are due to strains, of different virulence, of the same germ (which belongs to the filter-passing group). That is the principle of vaccination (the word comes from vaccinia or the cowpox) as it is done today.

The desirability of universal vaccination is still in dispute. There are active groups of anti-vaccinationists in many countries. We do not propose to go in detail into the pros and cons of this involved discussion. We consider that the statistics of smallpox incidence and mortality prove quite conclusively that vaccination has the greatest effect in protecting against the disease.

Smallpox is now to a large extent robbed of its terror. Occasionally a vaccination has ill effects, especially in people who were not vaccinated in infancy. There is a puzzling group of nervous diseases, such as a form of encephalitis, which in very rare cases appear after infectious diseases, such as influenza and whooping cough, and may follow vaccinia. But such sporadic accidents are heavily outweighed by the benefit that the spread of vaccination has brought about. For the statements we hear about vaccination being responsible for the increase in cancer and in infantile syphilis there is no foundation whatever.

For some diseases it is not necessary to inject living microbes; dead ones may stimulate the body to produce the necessary anti-bodies, and thus be used for immunization. Vaccination against typhoid fever is done in this way, by injecting dead cultures. It has been carried out very extensively in the armies of various nations, with admirable results.

In those cases that we have just considered the body is forced, by inoculating it either with microbes or with their products, to arm itself with anti-bodies against the invaders. This is called "active immunity." There are cases, however, in which it is impossible to make the body protect itself in this way. There may be no time. Thus, in preventive inoculation against tetanus, horses are made immune to the tetanus toxin by injecting it in gradually increasing doses, and then a little of their serum, containing anti-toxin, is transferred to the human patient. Thus the man is protected by having in his blood the anti-bodies that the horse made. This kind of immunity, produced by injecting ready-made anti-bodies, is called "passive immunity." Anti-tetanic serum has already saved countless lives. In 1914 upon the European War front there was a terrible mortality from tetanus among the wounded, owing to their wounds becoming infected with bacilli from the soil. But after that year all wound cases were treated with anti-tetanic serum as a matter of routine, with the result that the incidence of tetanus fell from sixteen per thousand to two per thousand. Nowadays such injection is a routine procedure at hospitals whenever an accident case with wounds is brought in. Diphtheria is a second example of a disease whose course can be very considerably modified by the injection of antitoxins.

These are but a few of many successful applications of the facts the study of immunity reactions has brought to light.

We are on fairly firm ground in discussion of the future health program that will have to deal with communicable disease control. As the years pass, this activity will undoubtedly assume a less important place and consume a lesser amount of the health department budget, as well as a lesser amount of time of the public health personnel. We have good reason to believe that many of the epidemic diseases that are now fairly prevalent will be brought under control. Communicable disease hospital requirements will be much less extensive. Epidemics of diphtheria, typhoid fever, cerebrospinal meningitis, poliomyelitis, and many others will give relatively little concern. We may see another great pandemic of influenza, but before the century has passed this disease will be under control. Tuberculosis will, of course, continue to decline until it is as rare as leprosy. Within our own lifetime the tuberculosis test will become a routine diagnostic procedure in adults, since less than 25 per cent will be infected by the time they have reached 25 years of age. Lobar pneumonia, particularly in the young adult, will be much less frequent and will not be regarded with the same dread as at present. Scarlet fever may be an exception to the general rule. The disease has not declined in incidence in the past 50 years. The decline has been in degree of severity. It is not at all impossible that scarlet fever will again resume its fully virulent form as it did from 1840 to 1880. No one can predict the immediate future in relation to syphilis and gonorrhea. We are sure that up to the present all our efforts to control the incidence of these diseases have met with little success. The ravages from these diseases, particularly syphilis, will undoubtedly be greatly ameliorated in the near future.

There is every reason to believe also that some new clinical entities that may now be unknown, or regarded as of little importance, may in the future assume serious proportions.

In general, however, one may state with a fair degree of certainty that the communicable diseases that now give us chief concern will, within the next fifty years, become of relatively small consequence. The health officer will devote the greater proportion of his thought and efforts to other matters.

The study of the infectious diseases and the epidemics caused by them, in progress since the middle of the nineteenth century, has not only removed the dangers to social and economic development but has furnished scientific and theoretical information of far reaching importance. Just as the discovery of visible disease producing microbes influenced every field in medicine so will the study of the invisible causes of infections ultimately alter our concepts of life. Continuity and progress, both along investigative and sociologic-economic lines, is a paramount prerequisite for the protection of the people from epidemic disasters and to secure the tools for the ultimate eradication of certain parasitic diseases.

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor & Manager
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Post-Graduate Medical Assembly

Mid-South Post-Graduate Medical Assembly
EDITORS:
E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dewell Gann, Jr., M.D.

Mississippi State Medical Association
W. L. Little ,M.D. .... President
Joe E. Green, M.D. .... President-Elect
T. M. Dye .... Secretary
EDITORS:
Leon S. Lippincott, M.D. D. W. Jones, M.D.
G. S. Bryan, M.D.

COUNCILORS:
J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J. Gould Gardner , M.D.
Thomas J. Brown, M. D. W. H. Frizell, M.D.
D. J. Williams, M.D.

Published monthly at Booneville, Mississippi

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act of March 3, 1870.

We deeply regret the passing of Dr. Walter R. Wallace, senior partner of Wallace Sanitarium, of Memphis. His death occurred on December 13. Dr. Wallace was a native of Mississippi and a graduate of the Tennessee Medical College. He later did special work in psychiatry in which specialty he was outstanding. He was a deacon in the First Baptist Church. Dr. Wallace was a man of fine personality. His heart was generous and kind. He was a lovable friend. He has one son, a first year medical student at the University of Tennessee. This genial spirit in the profession will be greatly missed in Memphis and the Mid-South. This journal offers its sincerest sympathy to the family in its great loss.

Medical problems are becoming more intricate as the years go by. Organized medicine is more urgent than ever before. We need to act as a unit. To do this every practitioner should belong to his medical society, local, state and national. Each doctor is benefited by organized medicine whether he belongs to his society or not. Each doctor should do his part by paying his dues to help the organization. By paying your dues and attending your medical society you help yourself, your fellow doctor and your clientele. President W. L. Little, of the Mississippi State Medical Association has urged over and over during the last few months the importance of being an active member in your society. He has done his part well along this line as well as many others. If you have not already paid your dues, do it now. Let the strong help the weak. Some counties are seeing to it that they are paid up one hundred per cent. If a man falls by the wayside because of hard luck, financially, or because he does not see the importance of paying his dues and being an active member, the other members chip in and pay for him. This is a fine plan we believe. We need several hundred more members in the Mississippi State Association. Members of the council can do some good work along this line, vice-presidents can do the same. Don't neglect your very best friend, organized medicine. Pay your dues and attend your societies.

Dr. Joseph H. Frances was recently named president-elect of the Shelby County Medical Society for 1939. Dr. J. J. Hobson will be installed as president at the January meeting. He will succeed Dr. M. W. Searight. Dr. A. F. Cooper is the efficient secretary, Dr. W. C. Colbert is the new vice president and Dr. E. G. Kelley, treasurer.

The first paper in the journal this month is a most practical and helpful one to any general practitioner, any doctor who has to do with obstetrics. It is the paper of Dr. W. T. Pride, of Memphis, and we thank him very graciously for it.

The Mississippi State Association will meet in Jackson in April this year. The Central Medical Society is very active. We should have the largest attendance on record at this meeting. It is not at all impossible.

The Mississippi State Medical Association should have one man elected for at least five years to have charge of the exhibits each year.

He should be paid a certain per cent and the rest should go to financing the meeting regardless of where it is held. If we are to have exhibitors they should have decent treatment. They can do a lot for a state meeting. We should not stay in the old rut forever.

We deeply appreciate our advertisers. They have very largely made our journal possible. Many papers and much medical news are being published that could not be if it were not for our advertisers. Everything else being equal we will thank you to show them consideration. We thank every one who has helped us to secure advertising for the journal.

The Northeast Mississippi 13-County Medical Society took on a rather large order for the December meeting. Dr. Abell, of Louisville, president-elect of the A. M. A., Dr. Ochsner, professor of surgery of Tulane, and Dr. Percy Wall, the versatile speaker of the House of Delegates of the Mississippi State Medical Association. Then with the president's address and a lively discussion on hospital insurance, the interest was keen throughout the afternoon. The T. K. E. Drug Company furnished elaborate entertainment at six o'clock at the Tupelo Hotel. Dr. A. J. Stacy, the efficient secretary, presided as toastmaster.

For every practitioner a registered nurse.

With the passing of another year it seems the part of wisdom that we should take inventory of our stock in trade and cast up accounts that a balance may be struck. When, and only when, this shall have been done may we know what progress, if any, we may have made during the year of 1937. Only at long intervals are startling achievements or worthwhile innovations made. It does not seem, to this writer, that nineteen-thirty-seven can claim credit for any of these. In saying this I have in mind such matters as protection against rabies, antisepsis and asepsis, the discovery of the tubercle bacillus, the plasmodium malariae, the diphtheria bacillus, the cause and specific treatment of syphilis, typing of pneumococi and the developing of sera for treatment of pneumonia, the discovery of insulin and the development of its proper usage, the discovery of the cause of typhoid fever and how to prevent it together with many other such like forward steps in the science of medicine. Most of this has been accomplished during the years that have elapsed since this writer entered the study of medicine. Medicine, truly, is a science and some of the world's greatest thinkers have devoted themselves to its study and progress. Of course collateral sciences such as chemistry, radiology and electricity have been drawn upon extensively for the advancement of medicine. This is as it should be. When I finished my rather limited hospital training and went out on my own responsibility, a great teacher and a true friend said this to me: "Remember, medicine is a **humbug** but surgery is a **science.**" Unfortunately for me I accepted that dictum as a truth, and labored under that illusion for a good many years. Had this great man and teacher said, "Medicine, as now understood, taught and practiced is a humbug," it would have been more nearly true. And then if he had added, "There lies out before medicine the greatest and most wonderful possibilities of any science," his statement would have been an inspiration that would have been of untold benefit to me.

However, as it was, it proved of much value to me in that it raised a doubt in my mind as to the correctness of much that was then believed taught and practiced. It enabled me better to recognize as superstition and tradition much of what was labeled as medical science. In fact, it enabled me to see that much of what passed (and still passes) as scientific medical practice is little better than "magic, mystery, and voodooism." So while I say, all hail! honor and glory to those who have added so much of real scientific value to medicine, let us look with doubt upon all the fads and fancies that seek to be **foisted** upon us. Let us remember that we hold in trust the health and lives (and consequently the happiness) of the human race. Let us not dare to administer drugs and follow practices that are offered and suggested to us all, too often, through ulterior and commercial reasons. No, medicine is **not** a humbug, but I fear, some times, we doctors practice **humbuggery** instead of medicine. Again, is it wholly true that **surgery** is a true science? Is it not rather an **art?** I know that it is true that many surgeons are great scientists. There is no way to estimate or evaluate the worth of men who combine science and art in their work. But I have known men who are wizards with the scalpel and needle, who are not scientists in any sense. Such men seem to think that all pathological tendencies should be "cut out." I believe in surgery **very much,** but I do not believe in **very much** surgery. Neither do I believe in **very much** (giving of) medicine. Let us learn and remember that "vis medicatrix naturae," if given an opportunity and time will over come most sickness. Have we accomplished anything in 1937? I think we have—I know we have if we have taken time to *think*. We, perhaps, have gotten rid of much goods that are shelf-worn and valueless. We have a clearer perspective, a brighter hope and higher aims for the future. Yes much, very much, has been done. Let us clear our decks and prepare for the next fight and victory. Cancer remains to be conquered. It can, it should, it **must** be done. Hail nineteen thirty-eight.

G. S. B.

PRESIDENT'S ADDRESS

L. L. McDougal, Sr., M.D.

Twelve months have come and gone since we met here and started the crusade for this, another year of progressive medicine. During this time it has been my pleasure and privilege to serve you as your president for these Northeast Mississippi Thirteen Counties.

We first met March 16th at my home town, Booneville, where we had an excellent meeting and a good attendance. In June we met at Houston where we always have a good meeting and good attendance. In September we were the guests of the Aberdeen doctors where we were royally entertained, had every essayist present and with unusually good papers.

At this time I would like to take you back for a brief history of medicine in this section of the state. Last year was the one-hundredth anniversary of old Tishomingo County which is now Prentiss, Alcorn and Tishomingo Counties. It dawned upon me that we should have a history of all the doctors of this great county for the last hundred years. I came to Tupelo and secured the aid of the WPA. Miss Susie V. Powell, State Historian appointed a supervisor in each county with three assistants each, all ladies. (There was no joke about their work either.) They searched all the courthouse records, old paper files, letters, monuments in old cemeteries, contacted all old people possible and others historically inclined. In the meantime I visited each of the three medical societies and secured their co-operation. As a result I obtained a brief history of more than two hundred doctors. I am having this information assimilated and compiled, and when completed I hope to place it in the Archives of History in Jackson, the State Board of Health, the State Medical Association and a copy with the secretary of the Northeast Mississippi Thirteen-County Medical Association. Why should not all other counties in the state do the same?

The first records we find of medicine here are a few medicine men (white men) among the Indians about the time Mississippi became a state, 1817. For this information I give our own Dr. W. A. Evans credit.

The first medical society was organized at old Jacinto, then the county seat, July 2nd, 1860, with Dr. J. M. Taylor president. Dr. Taylor helped to organize the State Medical Society at Jackson Mississippi, December 15th, 1856. The Tishomingo Medical Society survived only one year, because of the Civil War. The next record we have of a medical society was June 16th, 1870, which was known as the Tishomingo District Medical Society. It was organized in Dr. J. M. Taylor's office in Corinth.

The Northeast Mississippi doctors have played a great part in the creation and formation of the State Medical Association, State Board of Health and the laws governing the same.

These county societies have come and gone, lost their identity and we feel sure that the nucleus from which these thirteen counties came is Monroe County. It is the Mother County and Drs. Bryan, Underwood, Feemster and Elkin are the fathers.

Monroe County was organized in 1903. In 1908 Itawamba and Lee Counties joined Monroe to make a district society, and a little later, possibly 1909, Chickasaw was admitted to the union. Prentiss was admitted in 1914, Calhoun in 1916 and in 1919 Clay, Oktibbeha, Lowndes and Noxubee were admitted. Pontotoc came in in 1821 and in 1923 Alcorn and Tishomingo were annexed, making the thirteen counties. It was then necessary to close the flood gates in order to keep out the entire state.

Now we have the best medical society in the state, a paid up membership of 148 out of a total of 195. We also have the only medical journal in the state, and one which we believe to be as good as any in the United States.

All these component societies make up the State Association, and the State Associations go to make up the American Medical Association, which was organized in 1847 and is now the greatest and most powerful medical association in the world. It has a membership of 105,000 .

The medical profession employs approximately a million people, including 165,000 physicians, 150,000 pharmacists, 55,000 dentists and 400,000 nurses. It represents a capital investment of about six billion dollars.

In spite of all these huge figures, the American Medical Association is now and has been for the past two years most drastically criticised. It is being petitioned by some 430 physicians, all members of the A.M.A., and outstanding in prestige in the United States. These petitioners state that "the health of the people is a direct concern of the government." They claim that medical care is beyond the reach of one third of the population of the United States; that fifty million Americans have received no medical care whatsoever in the past year; that the average person spends at least one week in bed each year; that deaths are twice as high with the underprivileged class and that some diseases are seven times more fatal among the poor. Of the million deaths in the U. S. annually, one third of them could be saved with proper medical care. These petitioners presented a 13 point program to the A.M.A. convention last June which was rejected. Some of the high points in the resolutions were as stated above: that "The health of the people is a direct concern of the government and a national program of health should be formed." They ask for increased support for private and government hospitals which care for the needy and they would seek voluntary contributions as well as local, state and federal tax funds. They want increased support for medical research, education and study, and finally, to place this program in the hands of competent medical experts.

We further believe that the health activities of the government are sufficient to justify the creation of a cabinet post for secretary of health. To substantiate their claims they refer to the provisions of the Social Security Act of last year which provided $8,000,000 for the U. S. Public Health Service to be allocated to the various states annually. For the same purpose, the Children's Bureau is spending $3,000,000.

Dr. Fishbein, veteran editor of the Journal, sees many dangers in this program. He thinks the results would bring about inefficiency in the profession, lowering of the standards, decrease in revenue, and loss of the real identity of the physician.

In conclusion, I want to say that my purpose in giving you this brief history of our medical society and the criticisms and demands on the A.M.A. by these petitioners, is that we may know more about and be better prepared to defend our rights in our business or profession.

The Good Book says, "Search the scriptures for in them ye think you have eternal life." I insist that you study, unselfishly and without prejudice, the history and principles of our noble profession and the by-laws and the Medical Ethics given by the A.M.A., else the life of our profession is ended.

OFFICERS OF NORTH MISSISSIPPI MEDICAL SOCIETY

R. M. Adams, president, Ripley; A. J. McIlwain, vice-president, Batesville; A. H. Little, secretary, Oxford.

Panola County: A. P. Alexander, delegate, Como; A. J. McIlwain, alt-delegate, Batesville;

Union County: S. E. Eason, delegate, New Albany; C. M. Speck, alt-delegate, New Albany.

Tippah County: John Tate, delegate, Ripley; C. M. Murry, alt-delegate, Ripley.

Lafayette County: E. V. Bramlett, delegate, Oxford; E. W. Green, alt-delegate, Oxford.

Benton County: W. F. Coleman, delegate, Hickory Flat; J. F. Ferrell, alt-delegate, Ashland.

Marshall County: Ira B. Seale, delegate, Holly Springs; E. A. Thorne, alt-delegate, Holly Springs.

Yalobusha County: Ralph Criss, Jr., delegate; Coffeeville; D. C. French, alt-delegate, Water Valley.

POST-GRADUATE FELLOWSHIPS

Below is a list of names of the individuals to whom postgraduate fellowships have been awarded for study at Tulane beginning January 3:

Rufus E. Priest, Houston.
William J. Aycock, Calhoun City.
Robert H. Brumfield, McComb.
James P. Wiggins, Cleveland.
DeWitt T. Allred, Collins.
Joseph S. Gatlin, Laurel.
Benjamin C. Rush, Vaughan.
Dexter D. Johnson, Belmont.

The fellowships are in each instance for three months' study, six weeks of which will be in medicine and six weeks in surgery and allied subjects. All of the eight individuals to whom awards have been made have indicated to us within the past month that they will accept a fellowship and that they will in fact arrange to take the work beginning January 3.

OPPORTUNITIES AND RESPONSIBILITIES OF MEDICAL LEADERSHIP

Harvey F. Garrison, M.D., Jackson, Miss

My Fellow Physicians:

I am happy to greet you as highly honored and distinguished members of our noble profession.

My honored colleagues, you constitute the "select few" chosen by your respective states as the Presidents, Presidents-elect and Secretaries of your respective State Medical Associations. You are, by virtue of your positions, highly responsible representatives of the Southern Medical Association.

You have been invited to this conference because of your ability and service in behalf of organized medicine in your respective states. You have shown a willingness to sacrifice time and money for the advancement of the medical profession, to the end that we may all be better physicians, thereby qualifying to render a greater service to mankind.

Charles Schwab tells the following story: His wife had a very pretty maid, and he, Mr. Schwab, had a very handsome farmhand, and the two fell in love with each other. The maid was accustomed to the ways of New York society, while the man, who was honest and straightforward, was a man who had been accustomed to the ways of the country. However, in due time, the wedding took place.

They were all present, and greatly overjoyed at the happy marriage—the bride with her face wreathed in smiles of happiness, the groom, a picture of keen satisfaction. When the ceremony was completed, Mr. Schwab turned to him and said, "John, you have forgotten to greet the bride." John said, "By George, you are right," and taking her by the hand, he said, "I am happy to meet you."

He might have said a great deal more, but he could not have expressed more, either of his love or sentiment, than he did express. And so your humble speaker, however uncouth, however unpolished his words, however irregular the formation of his sentences, no man, with all the eloquence of Mr. Depew, or of Demosthenes, could express a sentiment deeper than that which I feel in my heart at this moment.

As the chairman of the conference, I welcome you, as esteemed co-workers and benefactors of humanity. Ours is a common interest. Our hearts beat in unison. As we sit in conference, we shall expect to receive much from each other and we hope that this gathering will not be without benefit to each one present.

MEDICAL PROGRESS

We are living in a great period of progress. Perhaps there has been more progress made within the period of our own lives than has taken place in this history of the world.

We have seen the horse and buggy replaced by the automobile. We have seen the windjammer of the sea give place to the modern ocean liner. We have seen the airplane become a popular mode of travel. We have seen the development of the radio which has brought the ends of the earth together within a fraction of a second. But with all the things going on in the world today, medicine is paralleling the progress of material things. We are progressing side by side and are developing in our midst great minds that can stand shoulder to shoulder with men of industry and men of other professions; a fact of which we may all well be proud.

The President of the United States, some time ago said: "We are having a rendezvous with destiny." So we are gathering here to have a rendezvous with science and progress. I hope during the period of time that you are here it will be a rendezvous in which there will be many things learned and many things given by those who have come to teach us.

More and more as we struggle for higher aims, I see the truth of what John Stuart Mill so beautifully said: "All the grand sources of human suffering are in a great degree, many of them almost entirely, conquerable by human care and effort, and though their removal is grievously slow, though a long succession of generations will perish in the breach before the conquest is completed, yet every mind sufficiently intelligent and generous to bear a part, however small and inconspicuous, will draw a noble enjoyment from the contest itself which he would not for any bribe in the form of selfish indulgence, consent to be without."

I have heard that no person should attempt to address an intelligent audience unless he can do at least one of four things. He should be able to (1) impart new information; or (2) rehearse that which is already well known; or (3) stimulate thought by asking questions; or (4) bore his audience until they take a good nap and be wide awake to appreciate the next speaker they hear. It is at least with the hope of doing the latter I bring to you a few remarks on "Opportunities and Responsibilities of Medical Leadership."

LOYALTY TO THE PROFESSION

First, let me suggest loyalty to our societies of organized medicine.

To my way of thinking, loyalty is one of the finest words in the English language.

In the practice of our profession we need all the assistance within our reach, external and internal. It will not do to spurn other's aid. The best of us know none too much—are none to wise; and that man who rejects the helps he might have; who, with the intelligence of a mill horse, is content to travel forever within the narrow circle of his own observation, is not the wisest. Poor indeed in resources must be that physician whose knowledge does not extend beyond the limits of his personal experience.

The doctor must promptly correlate his talents with those of his brothers, must help maintain and develop the art and science of medicine. He must build and grow within the circle of medicine. Alone he can accomplish a negligible bit; associated with his brothers, he can advance the standards and upbuild and sanctify all that medicine stands for. Such contracts and associations protect him and furnish the stimuli needed by the medical profession, both the hypo and the crutches. At present from 30 to 40 per cent of the recognized profession is outside the pale of organized medicine. They are indifferent to organized membership, ignorant of its opportunities and blessings, willing to be parasites, even hostile to the standards and ethics of the profession. Membership in organized medicine guarantees that you are in good standing, to the public, the law, and the medical profession.

There is no doubt that the wise physician continues to study throughout his entire life. He budgets his time for reading, for the stimulation resulting from medical society meetings, for the investigation of puzzling problems. Unless these are combined, some side of his professional fullness of life will be neglected and he will in some way restrict his field of usefulness.

The wise physician joins his local medical society and his state medical association and regularly attends their meetings. He also attends the larger medical associations to widen his horizon of medical perspective and knowledge. By active interest he takes his logical place as a leader in organized medicine as soon as his skill is demonstrated, which may be by papers, by discussions, by scientific exhibits or participation in the post-graduate courses. Our medical societies and associations offer an open forum for the advancement of medical thought. Always see to it that your programs are so valuable and attractive that none can afford to miss them; then advertise your meetings. This is legitimate advertising.

May I, at this point, emphasize the value and the importance of attending all the meetings of the Southern Medical Association. The Southern Medical Association meetings are practically always held in medical centers which are easily accessible to the physicians of the South. No better programs, scientific exhibits, social contacts, or fellowship can be found in any medical association, than that of the Southern Medical. I urge every leader of organized medicine in your respective states, present at this conference, to give your full cooperation to this association.

It goes without saying that the American Medical Association meetings should be attended whenever possible. The addresses and scientific exhibits are the finest in the country and merit the careful consideration of all physicians. The annual convention of the American Medical Association, which was held this summer at Atlantic City, was historic in the life of that great organization. It broke all records for attendance. Nearly 10,000 practicing physicians were there to find out how better to serve their patients, to see demonstrated the practical applications of the great flood of biological discoveries which have come out of the research laboratories in the past few years. I ask your serious consideration of all phases of the American Medical Association activities.

PROMOTION OF MEDICAL EDUCATION

A great opportunity and responsibility of medical leadership is to devise means and encourage in every manner, ways looking to a more adequate medical service to all people. To this end we would give to the physicians of this country the very best medical literature. We should improve, if possible, the medical journals, so that they may render a greater service to busy practitioners and public health officers. Would it not be a good idea to have the board of editors for each journal, men of recognized ability, to edit a section on the main subjects of surgery, obstetrics, general medicine, pediatrics, public health., etc. Let them be responsible for abstracting valuable practical articles in current literature on their respective subjects with appropriate comments from them. In this manner, the service of the journals to the medical profession can be materially improved. Give the physician the most possible good for his money. Many of our state and national journals have a modified form of this service now, but it seems that a well organized editorial board working in this manner could materially aid the service rendered by our journals

Our medical journals merit our sincere congratulations. We have reason to be proud of them, and we do not hesitate to place our own Southern Medical Association Journal in the front rank.

The opportunity and responsibility for medical leadership to check some of the encroachment and invasions in the field of medicine, is knocking at our door. Many radio addresses, newspaper and magazine articles on suggested ways and means for prevention and cure of disease by laymen, are repulsive, obnoxious, disquieting, and positively dangerous. Authors of all such addresses and published articles should by all means be physicians of recognized ability. Ways and means of improving medical education to busy practitioners should be of great concern to us. We should see to it that every opportunity for improving medical knowledge should be encouraged and advanced. In medicine, the field of action is growing infinitely broader, now that its training is securely based on science, and the divining rod no longer stands first among its implements of precision.

I wish especially to mention and praise the Commonwealth Fund of New York for their contributions to medical training, through post-graduate lecture courses, given by outstanding medical teachers for the busy practitioners. This is one of the greatest means for improving medical knowledge. Many such courses are being given all over the country to thousands of physicians. The Commonwealth authorities should be encouraged to continue such instruction.

PROMOTION OF PUBLIC HEALTH

We must also recognize the opportunity and the responsibility of cooperation with other public health authorities. There should be no friction between the medical profession and the local, state, and national public health services. Our aims and purposes are too closely allied to permit any permanent friction between us. The Surgeon General of the United States Public Health Service manifests a friendly attitude towards organized medicine, for which we should be grateful.

Some of the greatest physicians that ever lived were internationally-known public health officials. The opportunity and responsibility of leadership in cementing the right understanding between health officers and physicians is ours. We must work shoulder to shoulder in this great struggle for the prevention and cure of disease in this country, for after all, this is our chief concern.

The work of conserving the public health is just as dramatic as that of conserving property or preventing crime. Hardly a generation has passed since typhoid fever was taking from 75 to 125 lives out of every hundred thousand persons annually in our large cities. Today it is a disgrace for a city or town to have a death rate of more than three from typhoid fever, and such cities as New York or Chicago have rates as low as less than one. Diphtheria was the terror of any household in which there were children a few years ago, but today, thanks to the application of modern public health practice, there are cities and counties that have not had a death from this disease in years and some where not a single case has occurred.

Our communities are being safeguarded from epidemics and all age groups of the population are protected as a result of the enormous amount of education on health that has been and is still being carried on.

The whole program for the betterment of health goes forward as the rank and file of the people absorb knowledge regarding the proper way to live in order to make the most of their heredity and environment. Untold numbers of people, old and young, have been given a new conception of health. The benefits of this education are apparent in better habits of diet, rest, exercise, outdoor living, cleanliness, and in a score of other ways.

This is a process that implies the support not only of the medical profession and the public health organizations, but also of the schools, the churches and in fact of every avenue and agency of modern society.

MEDICAL AND HOSPITAL CARE NEEDED

The crying need of this country is for

better equipped physicians and hospitals and an equitable distribution of their services. Nobody seriously questions, of course, that the poorest should share equally with the richest in the boons of life and health which modern medicine provides. It is the old problem of distribution, and the distribution of medical services is far more complicated than the distribution of eggs and potatoes.

I am a pediatrician. My specialty leads me to deal altogether with children and babies. I see many children who should have medical and hospital care over a long period of time in order to correct their disabilities, but their families are not financially able to pay the necessary expense. Every physician sees similiar conditions in children and adults. It is pathetic to see the great number of people who could have their disabilities corrected, if some plan of medical and hospital insurance could be worked out by the medical profession.

The great question of better and more adequate hospital and medical care for the lower income group is both the opportunity and responsibility of the medical profession through organized medicine.

GOVERNMENT CONSIDERATION OF MEDICAL AND HOSPITAL CARE

Our national government is seriously considering the advantages of a national plan of health insurance, but as a matter of fact, the medical profession knows, that to put this plan in the hands of politicians would be both disastrous and non-effective.

How shall the doctor fit into the changing economic pattern? Is it permissible and desirable that medicine be "socialized?" Socialization implies almost inevitably a degree of standardization, and medicine lends itself as little to standardization as literature or music. "Canned" medicine is very likely to be bad medicine. We know that our medical leaders, such as those to whom I am speaking, are well qualified to select and adopt a plan that will be satisfactory to the profession and to the public.

I repeat, we recognize the need for more adequate medical and hospital service to the lower income group. The medical profession has always met its responsibilities for rendering service to this group, for many years for very little pay. Could we not work out some plan where we can render a better and more adequate service, and at the same time, realize through this plan, a more adequate compensation for the services rendered. It is confidently believed that we can solve this problem satisfactorily. Let us say to our national government we appreciate your interest in behalf of this group of needy people. You help them in every way to improve their ability to earn a greater income but leave the responsibilty for a solution of the problem of adequate medical and hospital care for this group entirely in the hands of organized medicine. Shall we accept the opportunity and responsibility for a satisfactory solution of this problem; or shall we wait until a national administration forces its plan upon us?

We admire the present national administration for its great accomplishments. We believe that the desire of the administration in this matter is prompted by the highest ideals, yet we know that our solution to the problem will in the end render a higher and more adequate service than any that could be accomplished by national interference at this or any other time.

The great services rendered by the medical profession of our country in times of war as well as in times of peace are well-known to the most casual observer.

THE RESPONSIBILITY OF ORGANIZED MEDICINE

We should have no arrangement or place in our plans for state or nationally controlled hospital and medical care for the lower income group. This is our own "baby." The opportunity and the responsibility for a satisfactory solution of this problem rests on the shoulders of our medical leaders. Their leadership in organized medicine in this field should command our most serious thought. The threat of a nationally controlled plan is at our door. Let it be well-known that the medical profession is opposed to any form of state or nationally controlled medical care for the lower income group. It is well to recognize the great danger of invasion by our government; thus the responsibility for an adequate plan of medical service for this group should and **must be worked out by organized medicine.**

There are statistics to prove that compulsory health insurance in Europe has not reacted to the advantage of public health. In 1934, there were six nations outside of the United States, which could boast of an all-causes mortality rate of less than 10 per 1,000 population. These were Canada, New Zealand, Australia, Union of South Africa, Norway, and the Netherlands. Of these, only one, Norway, has had such a system for compulsory health insurance for any length of time. Another, The Netherlands, has had such a system for only five years. The other four have achieved the record under private medical control. Lieutenant Arthur W. Hankovitz says: "The district physicians in small German villages, the fortunate ones holding state positions with a sure means of a meager livelihood, groan and curse under the burden of red tape, paper work, records in triplicate, form requisitions, limited drugs, and the like. The stimulus for personal improvement has ebbed away." The average number of days of incapacity to work owing to ill-health has risen from 5½ days to 28 days during the period insurance has been in effect in Germany; in the United States, it has not increased during that time.

My Fellow Physicians, I do not think I am an alarmist, but I feel that it is my duty to warn again and again our profession that unless we take positive and immediate steps, looking toward the solution of adequate medical care for the lower income group, the national government will certainly invade the field.

Mindful of the medical profession's ageless and fruitful tradition of self-sacrificing service and of the American people's stake in personal freedom, government should refrain from competing in or monopolizing the field of medicine.

The preservation and advance of standards in medical education, medical practice and medical research are important for the future quality of medical service. Since support by legislative appropriation inevitably favors political control and diminishes both the incentive and (through mounting taxation) the possibilities for private support, government should avoid any extension of the policy of subsidizing medical institutions.

If the governmental agencies will keep hands off, the medical profession will work out the problem along lines based on American ideals. Except as has hitherto been provided for by boards of health and the United States Public Health Service, any attempt to encourage the lay population of this country in the belief that the care of its health is largely the function and responsibility of the government is pernicious, dangerous, and obstructive to progress. The present situation calls for wisdom, leadership, and intelligent planning such as the personnel of this distinguished body affords.

I regard medicine as a wonderful career. I think it is worth the effort required by the long period of preparation. In fact I am inclined to paraphrase Sidney Smith's remark about the strawberry, to the effect that doubtless God might have made a better man than a good doctor but He never did.

COMMITTEE FOR MISSISSIPPI STATE MEDICAL ASSOCIATION

Dr. W. H. Anderson
Booneville, Miss.
Dear Doctor:

I sent you a night letter in order to attempt to get in this issue of the Mississippi Doctor the news that we are getting ready for the State Medical Association Meeting in April in a big way. We had our organization meeting this afternoon with Garrison, Womack, McIntosh, Ware, Blake, Long, Shands, W. Walley, McLean, Ainsworth, D. W. Jones, Kendall, Adkins, Armstrong and Moseley present and W. H. Hall, Wilson, Owen, Barkesdale, Hughes, Harris and Wall absent because of necessity. This crowd started the ball to rolling and are getting things under way in a big way for the state meeting and we want yo uto help us with some publicity in each issue of the journal until time of the meeting.

General Chairman: H. F. Garrison, Sr.; Vice-Chairmen: Percy Wall, Noel Womack, and John McIntosh; Secretary: M. B. Ware; Treasurer: T. H. Blake; Program & Clinic: H. F. Garrison, Percy Wall, Noel Womack, John McIntosh; Finance: D. W. Jones, Lawrence Long, Willis Walley, Robert McLean, and Temple Ainsworth; Entertainment: L. W. Long, H. R. Shands; Scientific Exhibits and Hotels: Robin Harris; Publicity: Leuch Hughes; Scientific Exhibits: W. Walley, Robt. McLean, T. Ainsworth, co-chairmen; Technical Exhibits: D. W. Jones; Lantern and Screens: T. E. Wilson; Golf: J. W. Barksdale; Fishing: N. F. Kendall and R. W. Hall; Rifle: George Adkins; Trapshooting: J. F. Armstrong; Ladies Entertainment: President of Auxiliary; Round Table Luncheons: George Owens; Transportation: L. B. Moseley; President of Society, general chairman, and Secretary (Ware); Ex-officio members all committees.

Those Jackson boys are going to put the push behind the meeting. You may expect the largest attendance the association has ever had.—Ed.

GRADUATE SCHOOL OF MEDICINE LOUISIANA STATE UNIVERSITY MEDICAL CENTER, NEW ORLEANS

January 3, 1938—One-month seminar in **pediatrics** begins.

January 5, 1938—Six-weeks' course in **neuropsychiatry** begins.

January 17, 1938—Six-weeks' course in **surgery** begins.

January 17, 1938—Six-weeks' course in **medicine** begins.

January 31, 1938—Two-weeks' course in **cardiology** begins.

January 31, 1938—One-month course in **obstetrics** begins.

January 31, 1938—Two-months' review in **pediatrics** begins.

February 14, 1938—Two-weeks' course in **physical therapy** begins.

(Holiday: Tuesday, March 1, **Mardi Gras.**)

For detailed information address:

The Dean of the Graduate School of Medicine
Louisiana State University Medical Center
1542 Tulane Avenue
New Orleans, La.

DR. R. J. BROWN

Dr. R. J. Brown, of Iuka, the new president of the Northeast Mississippi 13-County Medical Society. He recently won national fame as trapshooter. In his practice and as a citizen he is a square and a straight shooter. The association is in good hands with Dr. Brown at the helm.

BOOK REVIEW

Macleod's **Physiology In Modern Medicine**, in the earlier editions of which scores of today's physician gained much of their foundation study on the subject, is now out in an eighth edition. The new edition is so extensively rewritten, however, that little remains of the seventh, published shortly after Dr. Macleod's death. Contributions from nine eminent investigators on various phases of the subject make up the book, bringing in exceptionally adequate form those facts and conceptions which the practicing physician finds indispensible for any degree of competence in his work. The original purpose of the book, however, is achieved: "particular emphasis upon the application of the subject in the routine practice of medicine." The neuromuscular and of the editor, Dr. Philip Bard, of Johns Hopkins. The special senses are handled by Dr. J. M. D. Olmstead, Univ. of California. Dr. H. C. Bazett, of the Univ. of Pennsylvania, contributed the chapters on the circulation. The discussions on the respiration are by Dr. Carl F. Schmidt, of the Univ. of Pennsylvania; the physiology of the alimentary tract by Dr.

George R. Cowkill, of Yale; metabolism and nutrition by Dr. Chalmers L. Gemmil, of Johns Hopkins, and the endocrine glands by Dr. R. G. Hoskins, of Harvard. The remaining chapters, on the distribution and regulation of water in the body and the kidney, are contributed by Dr. Magnus I. Gregersen, of Univ. of Maryland

1051 pages, frequently illustrated by photographs, charts and grafts.

Price: $8.50. C. V. Mosby Co., St. Louis, Mo.

PARISH MEDICAL SOCIETY ELECTS DR. YOUNG AS HEAD OF BODY FOR THE YEAR

At the meeting of the St. Tammany Parish Medical Society held in Slidell on Friday night of last week two interesting papers were read by Dr. Carl Young and Dr. W. L. Stevenson.

The annual election of officers also took place that night with the following result: Dr. Frank F. Young, president; Dr. F. R. Singleton, vice-president; Dr. H. D. Bulloch, secretary-treasurer (re-elected); Dr. Roy Carl Young, delegate to the state society; Dr. Roy Young, delegate to the state society; Dr. H. E. Gautreaux, alternate.

The next meeting will be held in Covington on January 4th, at which time the newly-elected officers will be installed.

The many friends of Dr. F. F. Young, physician-in-chief of the famous Fenwick Sanitarium in Covington, has been honored by A. R. Johnson, state hospital director, by being named a member of the honorary advisory committee to the state haspital director.

This appointment of Dr. Young is in recognition of not only his ability but as a man who has devoted a great deal of his time, effort and finances toward the rehabilitation of stricken and suffering humanity, and we add our congratulations to those of the hundreds of his friends in this parish who will be pleased to learn of the honor conferred on him.

We feel sure that any honor coming to Dr. Young is well deserved. We are pleased to note the above.—Ed.

The Lederle Laboratories join us with a full page, the Louisiana Graduate School, the Hotel Gayoso and the Turner-Gotten Sanatorium are cooperating with us with half-pages. Drs. LeDoux, of New Orleans, James Bodley, Henry B. Gotten, and George Gartley, of Memphis, and I. C. Huggins, of Jackson, Miss., are showing their appreciation with courtesy cards. Their financial aid and their good will help us to push forward with greater determination to be of service to the profession.

THE TULANE UNIVERSITY OF LOUISIANA SCHOOL OF MEDICINE

Department of Graduate Studies

Review Courses:

Medicine, Surgery, Gynecology,
and Obstetrics

January 3 through February 12, 1938
February 14 through March 26, 1938

Director of Graduate Studies
1430 Tulane Avenue New Orleans, La.

PRINTING PLATE SPECIALISTS
MISSISSIPPI ENGRAVING CO.
Jackson Miss.

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

Public Health and the Venereal Diseases*

FELIX J. UNDERWOOD, M.D.
Jackson, Miss.

All of us know the cause of these diseases. We know that they outrank practically all of the other dangerous preventable diseases in the amount of serious illness and tragedy they cause. We know how to control them, and we also know that the application of necessary measures of prevention and control cannot proceed more rapidly than the formation of public opinion to support them.

The health officer must at present depend largely upon three methods of control which are outside his own jurisdiction; first, reducing the human carriers of the disease in the community through the **early diagnosis** and **treatment** of infected individuals by private physicians; second, reducing exposures to infection, through legal and educational programs; third, the personal use of prophylactic methods which may prevent infection at the time of exposure.

The history of the public health program in venereal disease control has been one of uneven development, often attended with much controversy over the value and soundness of measures. For example, debates occurs to to how far reporting of these diseases and quarantine when necessary constitute an interference with personal liberty. Another point of difference has been whether measures for compulsory examination and treatment of women prostitutes promote rather than decrease venereal diseases and sexual immorality, and whether such measures constitute an unwarranted discrimination between the sexes.

At the present time there is a general agreement among all, I believe, who have studied the problem carefully that the venereal diseases must be conquered by a simultaneous use of educational, ethical, recreational, legal and protective, as well as good medical measures.

If all persons believing themselves to be infected could be diagnosed promptly and thereafter induced to refrain from sexual intercourse until treatment has rendered them permanently non-infectious, these diseases would decline rapidly and soon disappear. Theoretically, syphilis at least is more readily subject to attack and eradication than any of the diseases public health departments have brought largely under control. Actually, syphilis, and to a much greater degree gonorrhea, still remain among the most prevalent of diseases not only in Mississippi but throughout the World, taking their toll of health and life from individuals of every race, age, sex, and condition of people. They are so insidious in their attack, so indirect in their methods of maiming and killing their victims, and so favored by the complicated relations between the moral and the medical aspects of their eradication, that the public has remained without an organized defense against them until quite recently.

Recognition of the necessity for encouraging and, where necessary, requiring the infected individual to place himself under adequate treatment and to carry out instructions for the protection of others, and for urging those not infected to avoid exposure, has led to the beginning of essential teamwork among three major groups. First are those dealing with the medical and public health phases of the problem—physicians, health officials, laboratory technicians, nurses, social workers. Second are groups dealing with educational and character-training phases—educators, the clergy, and other educational workers. Third come those dealing with the environmental phases—the police and courts, probation, parole, and other protective workers, playground and recreation groups, women's clubs, and representatives of all the varied forces influencing the wholesome use of leisure and combatting vice conditions which constantly degrade the youth of the country. As this teamwork has developed within very recent years, increasing progress has been noted in bringing syphilis and gonorrhea under control where such teamwork has been practiced.

---

*Read before the Clarksdale and Six Counties Medical Society, Clarksdale, March 24, 1937.

The public has begun to understand that these diseases are in themselves neither moral nor immoral. They are the pathological results of infection by dangerous parasites or germ enemies of mankind, which can be seen under a microscope; and they most frequently find opportunity to enter the body through the sexual organs and urinary system just as diphtheria germs get into the body through the throat or the hookworm through the skin of the feet. Realizing this, people will soon no doubt agree that diagnosis, treatment, and after-care should be provided for the victims of venereal diseases just as for the victims of any other disease, and that every measure consistent with sound public policy should be instituted to this end.

DISCUSSION

L. B. AUSTIN (Rosedale): A plague that disables half a million Americans a year, a plague that does a hundred times as much damage as the dreaded infantile paralysis, a plague that is wrecking lives, shattering homes and filling institutions all over the land with its insane, blind, feeble-minded or unemployable victims—that is syphilis. It bids fair to become the great American disease.

And yet we might virtually stamp out this disease were we not hampered by the widespread belief that nice people don't talk about syphilis, and that nice people shouldn't do anything about those who do have syphilis. This national hush-hush policy of ours has hushed up the fact that syphilis ranks with cancer, tuberculosis and pneumonia as one of the four greatest killing diseases; that probably over half of the victims of syphilis have acquired the disease innocently; and that, outrageous as it may seem, few of our young men and women past twenty-one have never been exposed to the risk of syphilis. Remember that a kiss may carry the germ. In an eastern state recently one health officer traced seventeen cases of syphilis to a party at which kissing games were played.

We have been justly concerned about the automobile accidents in this country which resulted in 1936 in 108,000 cases of permanent disability. How can we continue to ignore syphilis when we realize that it disabled nearly five times as many in that same year; or that it is responsible for more than 100 per cent of all insanity, 18 per cent of all diseases of the heart and blood vessels, for many of the stillbirths and the deaths of babies in the first weeks of life?

Until recently there was little or no discussion of syphilis as a public health menace. When other diseases were mentioned in radio health talks the very word syphilis was omitted by command of the broadcasting company. Only within the past year or two has the word appeared in the metropolitan newspapers.

A great fact in our sluggishness about syphilis is the attitude of a large group of citizens, many of them public-spirited women, who honestly believe that only commercial prostitutes and their clients are involved in the problem. "This being the case," they say, "why trouble ourselves about it? The victims of syphilis get no more than they deserve. The wages of sin is death, as it always has been. Why should we pay taxes or even think about this situation?"

The answer to that challenge is plain. In the first place, they are wrong who look at syphilis as exclusively a corollary of organized vice. Commercialized prostitution affects only 25 per cent of the problem. But even granted that syphilis were a reservoir of disease in the one lowest social class of the population, scientists insist that such disease always filters through to higher strata of society. From my own findings, I estimate that half the victims of syphilis are innocently infected, the larger part in marriage or congenitally. Many cases come from such casual contacts as the use of a recently soiled drinking cup, a pipe or cigarette; in receiving services from diseased nursemaids, barber or beauty shop operators, etc.; and in giving services such as those of a dentist, doctor, or nurse to a diseased person.

If we can free our minds of the medieval concept that syphilis is the just reward of sin, if we can discuss it and deal with it as we would any other highly communicable disease, dangerous to the individual and burdensome to the public at large, I do believe that there is no choice as to methods. How do we treat a case of bubonic plague, of yellow fever? Of smallpox? Or of infantile paralysis? In each of these diseases, health officials, private physicians, and common citizens are geared to speed in the protection of others from the infected case and to humane, immediate treatment. There is no badgering of the patient because he has been so ignorant or so unfortunate as to have acquired the disease; no indifference as to where he may have contracted it or to whom he might have given it before the disease was recognized.

Sypnilis control is not the business of the public health officer alone nor yet of the physician or the social worker. It is a job for the *whole* people; and surely hospital insurance corporations, which are now outstanding as guardians of the public health, can recognize a vast field for service in this vital problem.

HOW? *By selling a policy for those suffering from social diseases.*

You are shocked! You say, "Revolutionary! Unthinkable! An unheard of and foolish procedure!" May I remind you that similar exclamations greeted the first proposal of the general scheme of simple hospital insurance, which today is an established fact, and from which we now benefit.

Nor on the second glance is my suggestion so unworkable. Such patients could be taken care of in special hospitals which are supplied with the equipment and personnel to handle these cases.

Again, the suggestion is timely, for the government is now making a drive against syphilis and it will be easy to sell these contracts. We can convert government advertising and publicity, such as Thomas Parran, Surgeon General, United States Public Health Service, is sponsoring, into talks for the sale of this hospital insurance.

I submit this suggestion for your careful consideration. Hospital Insurance corporations are pioneers, and surely here is a field which is worthy of their attention.

Appendicitis—What We Can Do About It*

C. F. VARNER, M.D.
Memphis, Tenn.

It is not the purpose of this paper to present a large group of cases and their results nor to give a statistical survey of appendicitis but to try to stimulate some interest to formulate plans to lower the mortality rate of appendicitis. Although there have been numerour papers and much discussion among ourselves on this subject, we, as a whole, have done little toward getting the public educated on what to do and what not to do in the average case of pain in the abdomen.

A survey of the hospital statistics show that the appendicitis is responsible for fully fifty per cent of emergency operations. The fact that the morality rate has increased yearly from 11,000 in 1920 to 20,000 at the present time is conclusive evidence that patients do not come under observation or to surgical treatment at a time when its relief is is simple procedure. Self medication and ignorance regarding the significance of abdominal pain on the part of the public combined with procrastination and difficulty in recognizing atypical cases on the part of the profession bring about the problems which delay the appropriate treatment. Long ago Olser said, "There is no medical treatment for appendicitis." The practice of giving a good cathartic or freezing the attack has without a doubt cost many a life which could have been saved. Mistakes will be made but it is much better to sacrifice an occasional innocent, though suspected, appendix than a human life that might have been saved by timely operation.

This year is the semi-centennial of the first successful preoperatively diagnosed operation for appendicitis by Thomas G. Morton. We who have inherited these achievements should be stimulated by their example to continuous efforts in solving the problem as a cause of death.

During the summer and early fall months in 1936 there was a mild epidemic of poliomyelitis and as soon as an unusual number of cases were reported to the state health department active steps were taken to prevent spread of the infection. The city, county, and national health authorities cooperated in every way in caring for those who were afflicted with the disease and preventing further spread. The press, civic clubs, churches, schools and all other public organizations cooperated with the health department in preventing the occurence of disease. It occured to me that if, in a degree, such cooperation could be secured in stamping out or preventing the delay which occurred in most of our cases of appendicitis, such cooperation would be the cause of saving thousands of lives. According to Hogan, in Alabama, there were 133 deaths from appendicitis or 26.6% per month during the same months of the polio epidemic, but there was no mention on the part of the authorities as to the method of lowering this death rate. I mention these facts because, if brought before the public, in somewhat the same way the delay and ignorance on the part of the public could be averted and the usual case of ruptured appendix would be brought to the surgeon in a condition which would warrant a safe operation and a speedy recovery.

The problem of appendicitis has been, is and should continue to be an educational problem. If every case of appendicitis could be diagnosed early and operated upon promptly it would be of inestimable value socially and economically and would relieve patients untold suffering and agony and would reduce mortality from this disease to an incredibly low figure. School children, young men and women in colleges and people generally should be instructed in the function and structure of the alimentary tract especially emphasizing the occurrence of appendicitis. It should be generally known that the first symptoms of appendicitis are epigastric pain or distress followed by nausea and vomiting and the pain later settling in the right side, and that above all no purgatives nor opiates should be given. Within very definite limitations there should be no deaths from appendicitis. The deaths that do occur are largely the result of: (1) cathartics; (2) procrastination on the part of the patient or doctor; (3) failure of early diagnosis or to recognize the gravity of appendicitis; (4) surgical postponement; (5) incorrect or faulty pre- or postoperative treatment.

In my opinion cathartics and delay play the major part in the high mortality of acute appendicitis. Both of these situations are results of ignorance and misguidance on the part of the public as to the gravity of mistreating an early case of acute appendicitis, and could in a large measure be prevented by coordinated efforts of the public and the medical profession. The use of cathartics for abdominal pain has been greatly enhanced by the radio ballyhoo. Radio has been both harmful and helpful in this instance.

---

*Read before the Clarksdale and Six Counties Medical Society, Clarksdale, Nov. 10, 1937.

The A. M. A. has put on interesting dramatized medical programs over nation wide hookups during the morning hours, but it cannot compete with the evening hour program of some famous radio personality advertising such and such a medicine for gastritis and various pains in the abdomen. In one day I heard forty-two announcements over the radio for medicine which relieves abdominal pain, gas, constipation, etc. Too often we get the story of the patient going to the corner drug store and getting just the thing for gas on the stomach. To offset this constantly increasing advertisement of various drugs for abdominal pain the profession has to meet it more than half-way, and directly instruct the public what to do in the case of abdominal pain lasting over three hours.

The city of Philadelphia has done something about the cathartic treatment of abdominal pain and had a drop in appendiceal mortality from 14% to 11% in one year. Here the public is being taught that abdominal pain lasting over six hours is serious and that under no circumstances should a laxative be given. Any campaign to be successful must have publicity so the population is being made appendicitis conscious by placing placards in the drug stores reading as follows:

SEVERE PAINS IN THE ABDOMEN ARE DANGEROUS
DO NOT TAKE PURGATIVES
CALL A PHYSICIAN

In addition stickers were sent to many physicians who placed them on all statements and also they were given directly to school children requesting them to place these stickers on books that were used daily.

The stickers read as follows:

WARNING
IN PRESENCE OF ABDOMINAL PAIN NEVER GIVE A LAXATIVE, APPLY ICE CAP AND CALL FAMILY PHYSICIAN.

I think the application of ice cap is a wise instruction as it gives the executive type of aunt, grandparent or neighbor something to do until the physician gets these. Too often this type of person being anxious to do something, does the wrong thing before calling the physician. One large factory gave each of its employees a pamphlet containing the signs and symptoms of appendicitis and instructions what to do and what not to do for abdominal pain and for the past two years has not lost a case of appendicitis. There is no doubt as to the increase in mortality of acute appendicitis following the administration of laxatives. According to Bower, in patients who take no laxative, one in eighty dies, of patients taking one laxative, one in thirteen dies, of patients taking two or more laxatives, one in seven dies.

Now in return for this cooperation, namely early operation after onset of symptoms and the non-use of cathartics we can offer the patient a short safe stay in the hospital without much loss of time from work. The rapid development of anesthesia such as the newer gases namely, ethylene and cyclopropane, along with the increasing usage of spinal anesthetics has done much toward abolishing postoperative complications. The better relaxation of spinal anesthetics reduces to a minimum necessory operative manipulation within the abdomen, affords better exposure, cleaner dissection and easier wound closure.

As to the type of incision in appendicitis, the incision of choice is the McBurney incision. Does not the type of incision play a definite role in the mortality rate of acute appendicitis? After studying the excellent reviews of Bower it seems apparent that the death rate is lower in those cities where the McBurney incision is most widely used. Reid, in a report of sixteen hundred cases claims a reduction of 50% in mortality since using the McBurney incision, while Bower states that the death rate from all types of appendicitis was 6.2% using the McBurney incision, 19.4% using the right rectus incision and 27% using the midline incision. The advantages of the McBurney incision are: (1) simpler procedure requiring less time; (2) the appendix or appendiceal abcess easily accessible; (3) less soiling of the general peritoneal cavity; (4) less handling of the intestines for usually it is necessary only to touch the cecum and appendix; (5) maximum drainage with less likelihood of a hernia; (6) shorter hospitalization and shorter convalescence; (7) and a healed wound that is less disabling.

The length of hospitalization and the time of convalescence are of great economic importance to the average patient. In my experience the average length of hospitalization in clean cases is five days with five more days for convalescence. The complicated cases have a hospitalization average of 18 days and convalescence depending on how quickly the general condition returns to normal. There are no hernias from clean McBurney incisions.

In abcess cases approach is ideal affording excellent drainage possibilities either extra- or intraperitoneal and a minimum manipulation of abdominal contents.

Where there is definite abscess formation I do not attempt to remove the appendix but drain the abscess either extra- or intraperitoneally, as the case permits, using multiple drains and no sutures, the end result being a healed incision and no herniation.

In case of localized peritonitis using the McBurney incision there is little cause to handle anything but the cecum and the appendix. If the appendix can be removed without much manipulation I do an appendicocecostomy being sure to get the catheter well up in the ileum in order to prevent distension in the ileocecal value in these cases. Deaver goes so far as to do an ileocecostomy.

Now in cases of generalized or diffusing peritonitis it is generally deemed better judgment to treat these patients conservatively using the Murphy-Oschner- Sherran method. The expression of Richardson that there are instances in which we see the case too late for early operation and too early for the safe late operation frequently occurs in literature. Postponing operation in these cases of diffusing peritonitis until resistance has increased and localization is accomplished is sound judgment. These patients when seen upon the fourth or fifth day after onset of symptoms with distended abdomen, furred tongue, rapid weak pulse and often semi-delirious are toxic, dehydrated and literally hang between life and death. According to Burch, the mortality in these generalized peritonitis cases is 8.5% for the delayed conservative treatment against 42% in those immediately operated upon.

The object of the conservative treatment is to replace lost fluids up to and beyond the saturation point in order to prevent further peritoneal absorption of the toxins, quiet the alimentary tract and let the infection localize and at the same time give the body a chance to build up an immunity to this overwhelming infection.

In conclusion let me emphasize the importance of educating the public to being appendicitis conscious; abolish the use of cathartics in abdominal pain; prevent delay in the lapse of time between the onset of symptoms and operation; and above all consider every pain in the abdomen appendicitis until proven otherwise.

REFERENCES

Deaver, John B.: Opinion ef present high operative mortality in acute appendicitis, Surg. Gynec. Obst. 51 (Oct. 30) 1930.

Finney, J. M. T.: Appendicitis, Surg. Gynec. Obst. 56 (Feb.) 1933.

Bower, John O.: Acute appendicitis, J. A. M. A. 96, (May 2,) 1934.

Hogan, Edgar D.: The appendix problem, Ann. Surg. 105 (May) 1937.

Reid, Mont. R.: Remarks on the operative procedures for appendicitis. Surg. Gynec. Obst. 59:529 (Sept.) 1934.

Walker, Irving J.: Why the increasing mortality in appendicitis? Am. J. Surg. 25:228 (Aug.) 1934.

Allen, Phil D.: Acute appendicitis in children, J. A. M. A. 107 (July 10) 1937.

Abell, Irvin: Acute abdominal catastrophe, J.A.M.A. 109 (Oct.) 1937.

Heyd, Charles: Death from appendicitis, Am. J. Surg. 26:327 (Nov.) 1934.

Bower, John O.: Acute Appendicitis, Penn. M. J. 37:560 (April) 1934.

1304 Union Avenue

Serological Tests for Syphilis and Their Interpretations*

T. W. KEMMERER, M.S., M.D.
Director of Laboratories, Mississippi State Board of Health
JACKSON, MISS.

At the present moment we are chiefly concerned with the serological tests for syphilis from the standpoint of diagnosis, but perhaps a brief review of the fundamental principles of the tests will lead to a better understanding of their significance.

The serological tests are of two general types, complement fixation tests and flocculation tests.

Complement Fixation Test: If red blood corpuscles of one animal (sheep, for instance) are injected into another animal of a different species (rabbit, for instance) the blood serum of the second animal acquires the ability of hemolyzing the red blood corpuscles of the first animal. In the process of hemolysis two factors are concerned; first, a substance normally found in all blood, called the complement, and second, a substance, not normally present, which is produced as a result of the injection of the foreign corpuscles, called the amboceptor. The amboceptor is specific for the type of cells used in its production, that is, it will not, in combination with complement, hemolyze the corpuscles of an animal of a different species. The amboceptor is stable, that is, it does not deteriorate with age or when heated to a moderate degree. The complement is labile, that is, it does deteriorate with age or when heated. For this reason in actual practice the variable amount of complement in the amboceptor serum is eliminated by heating or aging and measured quantities of fresh complement are added at the time of setting up the test. Generally rabbits are used for the production of the amboceptor, guinea pig blood serum as the source of complement, and sheep or human red blood cells for the production of amboceptor and in the test. The terms "antisheep hemolytic system" or "antihuman hemolytic system" are used according to the kind of cells employed.

Given an amboceptor of known type, and complement, a test could be made of unknown cells to determine whether they were of the homologous type. A mixture of cells and amboceptor could be used as a test for free complement; that is, if free complement were present hemolysis would take place, if no free complement were present hemolysis would not take place.

Now then, if an animal, rabbit for instance, is injected with an organism (antigen), plague bacillus for instance, in such a manner as to produce immunity, the blood serum of this animal plus the organism will unite with complement, that is "fix" it. However, there would be no visible evidence of the fixation of the complement. If now, blood cells plus amboceptor are added, no hemolysis takes place as no free complement is present. If in a test using an unknown organism or an unknown immune serum, the organism and immune serum are not homologous, there will be no fixation of complement and hence the complement will be free to unite with the amboceptor and hemolyze the cells. This is a complement fixation test.

Wassermann wished to apply the complement fixation test to the diagnosis of syphilis. The treponema pallidum could not be grown in vitro as could the plague bacillus. However, the liver of a syphilitic foetus swarms with treponema. Wassermann made an extract of such liver with the idea that it would contain an extract of treponema. He used this extract (antigen) and patients' sera in setting up complement fixation tests. In syphilitics the test was positive (no hemolysis); in nonsyphilitics the test was negative (hemolysis). Later it was found that an extract of normal liver, normal human heart, or beef or other animal heart would do just as well. Consequently Wassermann's test was not a true specific test; that is, a reaction between a causative agent (antigen), the homologous immune serum, and complement. However, empirically, it rarely is positive except in syphilis, yaws, trypanosomiasis, relapsing fever, and possibly leprosy. The term "antigen" has been retained and applied to the extract of heart.

---

*Read before the Section on Surgery at the Seventieth Annual Session of the Mississippi State Medical Association, Meridian, May 12, 1937.

Although the original Wassermann test has been modified by Wassermann himself, and by almost every one else who has worked with it, the fundamentals remain the same, and it is permissible to designate all such tests as the "Wassermann" rather than to employ the more cumbersome term "complement fixation test for syphilis." This would include such variants as the Kolmer test, since there is less difference between the Kolmer test and other tests of today than between those of today and the original Wassermann test.

Flocculation Tests: These may be placed in two groups, the macroscopic, in which the test is made in a test tube, and the microscopic, in which the test is made on a slide and read with a microscope. The "antigen" is an extract of beef heart plus cholesterol, prepared in various ways for the different tests. Upon adding the antigen to patients' sera, flocculi form in the positive reactions but not in the negative reactions.

In the laboratory of the Mississippi State Board of Health we make the Wassermann test employing two antigens, lipoid antigen (acetone-insoluble, alcohol-soluble fraction of dried beef heart) and cholesterinized antigen (alcoholic extract of beef heart to which is added 0.2 per cent of cholesterol), and the Kline-Young microscopic flocculation test. Appended is a table giving the results of the two tests on 173.103 specimens. Credit is due Mabel C. Williams Kemmerer, Ph.D (Mrs. Kemmerer) for making the scattergrams and the calculations, and tabulating the results, which involved an immense amount of work. These statistics are perhaps unique in that all of the 173,000 Wassermann tests were set up by the same technician and all read by the director of the laboratory, and in that all of the flocculation tests were made by the director and all of the information on the data slips scrutinized by the director, who kept in as close contact with the clinicians as circumstances permitted.

The table shows for each test the number and per cent of reactions from negative through the intervening stages in order, to strongly positive, during six consecutive years, and the relative correspondence in terms of frequency and percentages between the flocculation test and the Wassermann test with two antigens. It is interesting to note, in passing, that there is very little year by year variation in the percentages falling within the various categories.

To simplify matters, if we consider a Wassermann test that is three-plus with one antigen and negative with the other and all stronger reactions as positive, and all weaker reactions as positive, and all weaker reactions as inconclusive, we have the following distributions:

	Positive	Inconclusive	Negative
Wassermann	18.7%	3.0%	78.4%
Flocculation	25.0%	9.5%	65.6%

Interpretation of the Tests: The serological tests are negative early in the primary stage and may not become positive until the fifth week or later. A negative test during this time is not significant. The flocculation test becomes positive earlier than the Wassermann test. A quite high percentage of positives during the first week has been reported in the literature. However, if the tests are positive very early after the appearance of a suspicious lesion there are two other possibilities, either that the lesion is older than reported or that it is not syphilitic but is superimposed upon an old syphilitic infection. On the same basis, care must be exercised not to call every conspicious symptom syphilitic because of a positive serological test—some other condition that is serious might be overlooked.

The tests are uniformly positive during the secondary stage. As clinical symptoms may disappear after the secondaries never to return, so the serological tests may become negative and remain so. But, as in other instances, there may be no clinical symptoms for months or for years, followed by recurrence of symptoms, so the serological tests may be negative during the quiescent period to become positive later. As during this quiescent period there may be flare-ups of clinical symptoms, so the serological tests may be negative at one time and positive at another. The serological tests are often positive when clinically the disease is quiescent. As the disease becomes less active, the tests become less strongly positive, the flocculation test being more strongly positive than the Wassermann, and remaining positive longer.

Under treatment, the Wassermann test usually becomes negative quickly, long before adequate treatment has been administered, to become positive again if treatment is discontinued. The flocculation test remains positive much longer, which is a decided advantage.

The Wassermann test is positive in yaws, trypanosomiasis, and relapsing fever. The evidence that the test is positive in leprosy and malaria is inconclusive. Pregnancy is not a cause of false positive Wassermanns. The most persistent cause of false positive Wassermann reactions is the growth of contaminating organisms in the blood specimen. The boiling of a syringe and needle is surgical asepsis, not bacteriological sterility. Too often when the specimen is taken with a syringe and needle so "sterilized," and put in a sterile bottle, it is contaminated. Keidel tubes or other sterile vacuum tubes should be used in collecting specimens.

The flocculation test (Kline) is more sensitive than the Wassermann test. It becomes positive earlier in the primary state and remains positive longer in treated and untreated cases. It is usually more strongly positive than the Wassermann test.

Occasionally the Wassermann test is more strongly positive than the flocculation test. In most of these instances the Wassermann is a so-called false positive, as can be demonstrated by repeating the tests on one or more specimens from the same patient. In some instances, however, the flocculation test remains persistently negative and the Wassermann test persistently positive. Apparently these are cases of syphilis, as revealed by further clinical study and therapeutic tests.

Usually, except when reactions with both antigens are strongly positive, the reaction with the cholesterinized antigen is more strongly positive than that with the lipoid antigen. But occasionally the reaction is more strongly positive with the lipoid antigen. This usually occurs very early in the primary stage of the disease.

In the foregoing we have considered these tests more or less as if they were either negative or strongly positive. But there are all gradations of reactions between negative and strongly positive. From a purely statistical standpoint these could be considered as positive without introducing any appreciable error. Most of them are due to syphilis. But some of them are due to extraneous factors. As with a test of any kind, the more weakly positive it is, the the greater the possibility that the reaction is due to some extraneous factor. However, if a weakly positive serological test for syphilis remains consistently positive on repeated tests, it is very strong evidence.

The advantage of using two or more antigens differing as much as the lipoid and the cholesterinized, and two or more tests differing as much as a complement fixation test and a flocculation test, is that they check on one another. If all tests are strongly positive, it is much more conclusive than if but one test were used. If some of the tests are more strongly positive than others but conform to the normal order, it is very conclusive, but if they do not, tests on a second specimen are indicated.

Considering the seriousness of the circumstances, even strongly positive tests on a single specimen should not be accepted as conclusive unless supported by clinical evidence.

For reasons previously stated a negative test is not conclusive. In congenital syphilis serological tests are negative for some months after birth. Ingestion of alcohol will cause Wassermann tests to be negative when they would otherwise be positive.

The custom of reporting serological tests as one-plus, two-plus, etc., and of reporting on more than one test often leads to uncertainty of the recipient as to the significance of the reported reactions, especially since in no two laboratories are the tests exactly the same in sensitivity nor are the readings by any two individuals exactly the same except in the negative and strongly positive reactions. For this reason it would probably be better to report reactions simply as positive, inconclusive, and negative, it being the responsibility of the laboratory to make the evaluation. On this basis the report of the laboratory of the Mississippi State Board of Health would be as follows: Positive: includes 'negative, three-plus' and 'three-plus, negative' and all stronger Wassermann reactions and three-plus reactions. Flocculation. Inconclusive includes all weaker reactions. Negative: all negative reactions.

Positive test—almost certainly syphilis, inclusive—probably syphilis, negative—syphilis not excluded.

WASSERMANN AND KLINE-YOUNG MICROSCOPIC FLOCCULATION TESTS

Tabulation of Results on 173,103 Specimens

Laboratory of the Mississippi State Board of Health
T.W. Kemmerer, M.S., M.D., Director

Kline-Young Microscopic Flocculation Test

Wassermann Test	Year	− No.	− %	± No.	± %	+ No.	+ %	+ + No.	+ + %	+ + + No.	+ + + %	Total No.	Total %
	1930	13884	59.93	0	0	1214	5.25	1438	6.20	904	3.90	17740	75.28
	1931	18259	62.25	644	2.20	1433	4.89	1534	5.23	839	2.86	22709	77.43
L*−	1932	15405	65.40	529	2.24	673	2.86	881	3.74	545	2.31	18033	76.56
C −	1933	15604	66.25	523	2.22	629	2.67	757	3.21	729	3.09	18242	77.45
	1934	23125	67.73	944	2.77	934	2.64	1211	3.55	1423	4.17	27637	80.94
	1935	26080	66.27	1189	3.02	1718	4.37	1329	3.38	1257	3.20	31573	80.23
	Total	112357		3829		6601		7150		5697		135634	
	%	64.91		2.21		3.82		4.13		3.29		78.35	
	1930	17	.07	0	0	14	.06	59	.26	109	.47	199	.86
	1931	44	.15	11	.04	31	.10	108	.36	154	.53	348	1.19
L −	1932	53	.22	17	.07	42	.18	113	.48	193	.82	418	1.77
C +	1933	49	.21	18	.08	30	.13	88	.37	225	.95	410	1.74
	1934	46	.13	12	.04	9	.03	87	.26	371	1.09	525	1.54
	1935	78	.20	11	.03	50	.12	127	.33	340	.87	606	1.54
	Total	287		69		176		582		1392		2506	
	%	.16		.04		.10		.33		.80		1.45	
	1930	1	...	0	0	1	...	0	0	3	.01	5	.02
	1931	4	.01	0	0	0	0	1	...	8	.02	13	.04
L +	1932	7	.03	2	.01	2	.01	3	.01	3	.01	17	.07
C −	1933	2	.01	0	0	0	0	1	...	2	.01	5	.02
	1934	0	0	0	0	0	0	1	...	7	.02	8	.02
	1935	6	.02	2	.01	0	0	6	.02	5	.02	19	.05
	Total	20		4		3		12		28		67	
	%	.01		...		...		.01		.02		.04	
	1930	0	0	0	0	0	0	1	...	5	.02	6	.03
	1931	2	.01	0	0	1	...	2	.01	2	.01	7	.02
L +	1932	5	.02	0	0	0	0	1	...	1	...	7	.03
C +	1933	3	.01	0	0	0	0	0	0	7	.03	10	.04
	1934	4	.01	0	0	0	0	1	...	5	.02	10	.03
	1935	6	.02	2	.01	3	.01	5	.01	19	.05	35	.09
	Total	20		2		4		10		39		75	
	%	.01		...		...		.01		.02		.04	
	1930	20	.08	0	0	17	.07	72	.31	186	.80	295	1.27
	1931	51	.18	15	.05	23	.08	105	.35	213	.72	407	1.39
L −	1932	43	.18	12	.05	14	.06	76	.32	159	.68	304	1.29
C + +	1933	53	.23	3	.01	9	.04	60	.27	157	.67	282	1.20
	1934	29	.08	7	.02	5	.01	45	.13	266	.78	352	1.03
	1935	39	.10	8	.02	17	.05	81	.20	270	.63	415	1.06
	Total	235		45		85		439		1251		2055	
	%	.14		.03		.05		.26		.72		1.19	
	1930	7	.03	0	0	1	...	4	.02	5	.02	17	.07
	1931	5	.01	2	.01	1	...	4	.01	5	.01	17	.06
L + +	1932	8	.03	0	0	0	0	2	.01	3	.01	13	.06
C −	1933	2	.01	1	...	0	0	1	...	4	.02	8	.03
	1934	2	.01	1	...	1	..	3	.01	2	.01	9	.03
	1935	6	.02	1	...	2	.01	2	.01	5	.01	16	.04
	Total	30		5		5		16		24		80	
	%	.02		...		...		.01		.01		.05	

*L: Lipoid Antigen; C: Cholesterinized Antigen page 2

Kline-Young Microscopic Flocculation Test

WASSERMANN TEST	Year	No.	%	No. ±	%	No. +	%	No. ++	%	No. +++	%	Total No.	Total %
L+ C++	1930	1	...	0	0	2	.01	5	.02	16	.07	24	.10
	1931	4	.01	2	.01	0	0	3	.01	17	.05	26	.09
	1932	2	.01	0	0	0	0	7	.03	7	.03	16	.07
	1933	3	.01	2	.01	3	.01	10	.04	28	.12	46	.19
	1934	3	.01	0	0	1	...	5	.02	43	.13	52	.15
	1935	2	.01	0	0	7	.02	13	.03	72	.18	94	.24
	Total	15		4		13		43		183		258	
	%	.01		...		.01		.02		.11		.15	
L++ C+	1930	0	0	0	0	0	0	1	...	1	...	2	.01
	1931	2	.01	0	0	1	...	0	0	1	...	4	.01
	1932	3	.01	0	0	0	0	0	0	0	0	3	.01
	1933	0	0	1	...	0	0	2	.01	3	.01	6	.03
	1934	1	...	0	0	0	0	1	...	3	.01	5	.01
	1935	3	.01	0	0	0	0	1	...	9	.03	13	.03
	Total	9		1		1		5		17		33	
	%	...		...		...		...		.01		.02	
L++ C++	1930	5	.02	0	0	0	0	4	.02	10	.04	19	.08
	1931	0	0	1	...	0	0	5	.02	15	.05	21	.07
	1932	0	0	2	.01	1	...	5	.02	3	.01	11	.05
	1933	1	...	0	0	2	.01	1	...	10	.04	14	.06
	1934	1	...	0	0	1	...	1	...	6	.02	9	.03
	1935	4	.01	3	.01	1	...	6	.02	22	.05	36	.09
	Total	11		6		5		22		66		110	
	%	.01		...		...		.01		.04		.06	
L− C+++	1930	49	.21	0	0	16	.06	145	.62	727	3.13	937	4.05
	1931	60	.21	6	.02	30	.10	202	.68	677	2.31	975	3.32
	1932	65	.28	5	.02	37	.15	137	.79	1000	4.24	1294	5.49
	1933	73	.31	7	.03	25	.11	79	.34	420	1.78	604	2.56
	1934	49	.15	3	.01	15	.04	71	.21	633	1.87	776	2.27
	1935	63	.16	9	.02	32	.08	92	.24	646	1.64	842	2.14
	Total	359		30		155		776		4138		5428	
	%	.21		.02		.09		.44		2.37		3.14	
L+++ C−	1930	10	.04	0	0	1	...	8	.03	12	.05	31	.13
	1931	12	.04	1	...	11	.04	15	.05	25	.09	64	.22
	1932	25	.16	4	.02	3	.01	8	.03	23	.09	63	.27
	1933	3	.01	0	0	2	.01	3	.01	13	.06	21	.09
	1934	4	.01	1	...	0	0	4	.02	16	.04	25	.07
	1935	5	.01	2	.01	5	.01	8	.02	18	.05	38	.10
	Total	59		8		22		46		107		242	
	%	.03		...		.01		.03		.07		.14	
L+ C+++	1930	2	01	0	0	6	.03	27	.12	154	.66	189	.82
	1931	0	0	3	.01	5	.01	30	.13	183	.62	221	.75
	1932	7	.03	1	...	6	.03	33	.14	300	1.28	347	1.47
	1933	7	.03	1	...	4	.02	39	.16	227	.97	279	1.18
	1934	3	.01	1	...	6	.02	23	.06	327	.96	365	1.07
	1935	8	.03	1	...	8	.03	39	.10	351	.89	407	1.03
	Total	27		7		35		196		1542		1807	
	%	.02		...		.02		.11		.89		1.04	

page 3

Kline-Young Microscopic Flocculation Test

WASSERMANN TEST	Year	No. −	%	No. ±	%	No. +	%	No. ++	%	No. +++	%	Total No.	%
	1930	1	...	0	0	0	0	3	.01	3	.01	7	.03
	1931	1	...	0	0	0	0	1	...	4	.01	6	.02
L+++	1932	0	0	1	...	0	0	2	.01	5	.02	8	.03
C +	1933	0	0	0	0	1	...	1	...	5	.02	7	.03
	1934	0	0	0	0	0	0	3	.01	10	.03	13	.04
	1935	2	.01	1	...	1	...	4	.01	19	.05	27	.07
	Total	4		2		2		14		46		68	
	%	...		...		...		.01		.03		.04	
	1930	6	.03	0	0	4	.02	33	.14	227	.98	270	1.16
	1931	3	.01	2	.01	7	.02	47	.16	290	.99	349	1.19
L++	1932	1	...	1	...	4	.02	26	.11	243	1.04	275	1.17
C+++	1933	5	.02	4	.02	2	.01	17	.07	190	.81	218	.93
	1934	3	.01	1	...	2	.01	13	.04	264	.77	283	.83
	1935	1	...	0	0	4	.01	22	.06	336	.85	363	.92
	Total	19		8		23		158		1550		1758	
	%	.01		...		.01		.09		.89		1.02	
	1930	1	...	0	0	0	0	4	.02	5	.02	10	.04
	1931	0	0	1	...	1	...	1	...	8	.03	11	.04
L+++	1932	5	.02	0	0	2	.01	3	.01	11	.05	21	.09
C++	1933	0	0	1	...	0	0	1	...	8	.04	10	.04
	1934	0	0	0	0	0	0	2	.01	8	.03	10	.03
	1935	1	...	0	0	2	.01	2	.01	17	.04	22	.06
	Total	7		2		5		13		57		84	
	%	...		...		...		.01		.03		.05	
	1930	14	.06	0	0	6	.03	207	.50	3578	15.44	3716	16.04
	1931	14	.05	5	.02	11	.04	114	.39	4008	13.66	4152	14.16
L+++	1932	15	.06	3	.01	11	.05	127	.54	2569	10.91	2725	11.57
C+++	1933	10	.04	4	.02	11	.04	103	.44	3264	13.86	3392	14.40
	1934	16	.05	7	.02	11	.04	115	.33	3917	11.46	4066	11.91
	1935	12	.04	10	.03	28	.08	172	.44	4625	11.75	4347	12.32
	Total	81		29		78		749		21961		22898	
	%	.05		.02		.04		.43		12.69		13.23	
TOTAL	No.	113540		4051		7213		10231		38068		173103	
	%	65.59		2.34		4.17		5.91		21.99		100.00	

MISSISSIPPI STATE MEDICAL ASSOCIATION

Organized 1867

OFFICERS

President	W. L. Little, M.D., Wesson
President-Elect	Joseph E. Green, M.D., Laurel
Vice-Presidents	F. S. Hill, M.D., Grenada Lawrence W. Long, M.D., Jackson R. F. Ratcliff, M.D., Lucedale
Historian	Leon S. Lippincott, M.D., Vicksburg
Speaker	J. P. Wall, M.D., Jackson
Secretary	T. M. Dye, M.D., Clarksdale
Treasurer	E. LeRoy Wilkins, M.D., Clarksdale

COUNCIL

First District	J. W. Lucas, M.D., Moorhead
Second District	L. L. Minor, M.D., Rt. 4, Memphis, Tenn.
Third District	R. B. Caldwell, M.D., Baldwyn
Fourth District	T. J. Brown, M.D., Grenada
Fifth District	W. H. Watson, M.D., Brandon
Sixth District	H. Lowry Rush, M.D., Meridian
Seventh District	J. Gould Gardner, M.D., Columbia
Eighth District	W. H. Frizell, M.D., Brookhaven
Ninth District	D. J. Williams, M.D.. Gulfport

COMMITTEES

Constitution and By-Laws: W. H. Frizell, M.D., Brookhaven; J. Rice Williams, M.D., Houston; W. W. Crawford, M.D., Hattiesburg.

Budget and Finance: J. B. Howell, M.D., Canton; B. S. Guyton, M.D., Oxford; D. C. Montgomery, M.D., Greenville.

Public Policy and Legislation: W. H. Anderson, M.D., Booneville; F. J. Underwood, M.D., Jackson; Henry Boswell, M.D., Sanatorium.

Publication: Leon S. Lippincott, M.D., Vicksburg; D. W. Jones, M.D., Jackson; G. S. Bryan, M.D., Amory.

Program: T. M. Dye, M.D., Clarksdale.

Isolation Hospitals: H. F. Garrison, M.D., Jackson; J. Gould Gardner, M.D., Columbia; H. C. Ricks, M.D., Jackson; W. H. Anderson, M.D., Booneville; John Darrington, M.D., Yazoo City.

CHAIRMAN OF SECTIONS

Medicine	L. J Clark, M.D., Vicksburg
Surgery	J. Gould Gardner, M.D., Columbia
Hygiene and Public Health	H. C. Ricks, M.D., Jackson
Eye, Ear, Nose and Throat	Van Dye Hagaman, Jackson

ADVISORY TO WOMAN'S AUXILIARY

W. L. Little, M.D.,	Wesson
Joseph E. Green, M.D.,	Laurel
Henry Boswell, M.D.,	Sanatorium
T. M. Dye, M.D.,	Clarksdale
T. J. Brown, M.D.,	Grenada

Mississippi State Medical Association

Leon S. Lippincott, M.D., ...Editor
D. W. Jones, M.D., ...Associate Editor
G. S. Bryan, M.D., ...Associate Editor

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

EDITORIALS

HAPPY NEW YEAR

Never tell your resolution beforehand.—John Selden.

RESOLUTIONS

This month we begin a new year. This is the time when resolutions are usually made—probably decisions that we expect and hope will bring us greater "health, wealth and happiness." Humorists have much fun in depicting the resolutions that are soon broken. In reality habit is a strong master—sometimes *almost* irresistible. But, any man who has had the courage and stamina to prepare for medicine, to meet the discouragements and hard work of medical school, to give his best efforts to an interneship, and then to go out to practice medicine on his own, certainly can keep resolutions whether expressed to others or to himself alone.

Perhaps never before have so many problems and so many uncertainties faced the medical profession as today. They demand the best thought of every physician. They demand courageous defense and they demand aggressive offensive. As victory in time of war is only possible through the concerted action of every unit engaged, so now every medical society should be ready to do its part as it is called, whether for defense or for offense. Victories are not won by waiting to see what will happen. They are won by having a definite plan and the cooperation of every individual in carrying out that plan. Every possible move of the enemy must be considered and the plan must include a way to meet any emergency.

There must be leaders, and the leaders must have the confidence of those under their leadership. Medicine has an organization that can accomplish anything that is right. The American Medical Association is the general headquarters. The state associations make up the American Medical Association and are represented in its House of Delegates. The county medical societies make up the state associations and the county societies are made up of and only possible through membership of individual physicians. The county societies should this year especially put forth every effort to see to it that every reputable doctor in their jurisdictions is enrolled. Men, non-members now, must be shown the way. If every present member would make a resolution and keep it to talk to at least one non-member friend, the Mississippi State Medical Association would be the strongest in its history. Let's do it *this month.*

To carry on any endeavor, funds are necessary—dues in this instance. It is a great help to your secretary, who is usually serving without pay, if he receives your dues before the first of the year. Even though your membership in your society does not lapse before the first of February or perhaps even later in some instances, it should be remembered that medical defense protection by the Council of the Mississippi State Medical Association lapses with the calendar year. In other words you are not protected until your dues for 1938 are paid.

RESOLVED: *That in this New Year of* 1938 *I will give my best thought, actively work, and do everything in my power to further the cause of the profession of medicine.*

FIND YOURSELF

Sometimes we hear, "I am only a doctor." It is bad enough to make such a remark—but sometimes there is a smile when it is made. The very manner is offensive and the words themselves suggest inactivity. Just a doctor! Were it said with humility, there might be some pardon due—but facetiously! Only a doctor—the heavens cry out against such a statement.

Rather say, "I am a doctor." Then here will be implied that I am one who has found himself, with others who have found themselves; who sees his faults and tried to correct them; who carries the highest ideals into his vocation in life, and strives to make his position in the profession an example worthy of the emulation of others; who has bound himself with thousands of others, throughout the world, to lessen the suffering of men; who will not be satisfied until the highest and best treatment and care shall be available to every human being in a country that leads the world. That is the profession of medicine.

MEASURING THE STRENGTH OF THE PROFESSION

Occasionally we meet a friend or make a

new acquaintance outside of the medical profession who seems to know much about the ideals of medicine and who appears to have a fine appreciation of what the profession is accomplishing. Often we wonder if we have as fine appreciation of the medical profession as some laymen. Are we who are on the "inside" of medicine too close to see what some on the "outside" may see? Sometimes our viewpoint may become too restricted and we may fail to see medicine in the proper perspective. The fundamentals of medicine as taught and practiced even in one society are entirely sufficient to justify a single society's existence; but think of the power of such principles when presented and practiced in thousands of societies throughout the country. Let's keep the viewpoint of one on the "inside" but also get the broader vision of the ideals of medicine beyond the confines of our own community because each society and each individual member is part of the profession, and the profession is only the composite of the spirit of cooperation found in each society. The whole is only as strong as its component parts. Each member is a factor in determining the strength of a local society; each society is a factor in determining the success and protection of the ideals of the profession generally.

ASSETS OF PRACTICE

Goodwill and the confidence that it brings are the only solid assets of the practice of medicine.

Goodwill is created by good methods.

DIVIDENDS ON YOUR MEDICAL SOCIETY INVESTMENT

The dividends that you receive from your medical society will compare favorably with those from any other investment. They may be intangible, but they are none the less real. How many of your friendships were formed through your medical society associations? How many activities have you participated in, because of your membership in your medical society, which have brought you satisfaction because you have played your part? How many neighbors, patients, young people have come into contact with you and have observed in you the spirit of helpfulness? Perhaps the smallest part of your investment in your medical society is the money. Your time and interest are more important, and make up the element which brings the greatest dividends. And don't forget—the interest you receive depends upon the interest you give. Your dues are due now!

"HOLD FAST THE SPIRIT OF YOUTH"

On the walls of Columbia University there is emblazoned a motto, "Hold Fast the Spirit of Youth." What a motto this is! Hold fast to the spirit of youth—not to youth itself, but to the spirit of youth, its idealism, its vision, its promise, its hope!

That the Greeks had the spirit of youth is evidenced by a spontaneous expression of admiration from a visitor from a distant shore, who exclaimed "Oh Solon, Solon, you Greeks are always children; there are no old men among you; your souls are always young."

Barrie was doubtless inspired by this idea when he created his immortal character Peter Pan, the boy who wanted never to grow up. On the other hand there are many men who have become old before they finished growing up, and who have never fully tasted the joys of youth.

To the one who captures and holds fast to the spirit of youth old age will never come, for it is not the passing of birthdays that makes a man old but it is the relinquishing of the spirit of youth that causes him to become permanently parked, like an out of date automobile, in the graveyard of the used carman.

Men become obsolete, not by reaching the date set on the calendar for retirement, but because they have loosened their hold upon the spirit of youth, and are thus left behind to dodder, and to await the coming of the grim reaper.

Youth has even led the way, for verily the child is the father of the man. Not necessarily youth of 'teen age, but the spirit of youth in the soul of a mature man, rich in experience, his feet on solid ground.

The eternal young fellow feels a zest for life and for adventurous living. Like the lad in the poem, he carried ever in his heart the ideal of "Excelsior."

The spirit of youth is ever illuminated by the blazing torch of vision, with its aurora of hope, and its freshness of faith. Its light makes bright the forward press of progress.

Yes youth is eternal and its spirit will ever lead the way to better things.—*Atlanta Bulletin.*

GREATER LOVE HATH NO MAN

A little girl was desperately ill in her home and a consultation of doctors was held. The physicians decided there was no hope except by transfusion of blood. The child's small brother, robust, active, full blooded, ran through the room where the doctors were consulting.

"He should be a good subject for the transfusion," one of the physicians remarked.

The family doctor followed up the little lad and asked:

"Son would you be willing to give your blood to save your sister's life?"

The boy's lips quivered as he looked the doctor in the face. He gulped two or three times before he replied:

"Yes sir; I'm willing."

Two days later the transfusion took place in the hospital of a Newark suburb. The boy, strapped to an operating table beside his sister, gritted his teeth and forced a smile upon his face. As his blood coursed through her veins and her pulse grew stronger, with a slight flush coming to her cheeks, the surgeons seemed relieved. The family doctor turned to the lad to assure him that the operation was over and that he had made it successful. Before he could speak the lad whispered:

"Doc, how long before I croak."—*Minnesota Hospitals.*

COPIED

"The idea! Do you think you should be chasing girls at your age?"

"Heavens, no! The ones I chase aren't half my age yet."

EFFECTIVENESS

The effectiveness of any organization depends largely upon the willingness and readiness of all its members to render service whenever those in authority request it. Doctors should be imbued with the spirit to do one's best under existing circumstances whenever the call comes. Such readiness to serve makes for your medical society a happy and harmonious fellowship for all who manifest the spirit.

ONE OF LIFE'S BLESSINGS

A knowledge that another has felt as we have felt, and seen things not much otherwise than we have seen them, will continue to the end to be one of life's choicest blessings.—Robert Louis Stevenson.

A DOCTOR'S RESPONSIBILITY

Make no mistake about it, medicine is one of the greatest potentialities the world has, or can have, for good, if doctors will only use their powers, and remain true to their trust.

DIRECTORY AND CALENDAR OF MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-First Annual Session and Thirty-fifth Annual Session of the House of Delegates, Jackson, April 19, 20, 21.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p. m.

Amite County Medical Society: D. H. Thornhill, Crosby, secretary. Meets second Thursday, each month with Wilkinson County Medical Society, Field Memorial Hospital, Centerville.

Central Medical Society: L. W. Long, Jackson, president; Gayden Ward, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m. except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. D. House, Sledge, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clarke-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: I. W. Barrett, Clarksdale, president; N. C. Knight, Clarksdale, secretary. Meets second Wednesday each month, Alcazar Hotel, Clarksdale, 12:00 Noon.

Coast Counties Medical Society: W. W. Lake, Pass Christian, president; D. L. Hollis, Biloxi, secretary. Meets first Wednesday each month, at night.

Delta Medical Society: E. T. White, Greenvile, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

Desoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, Rt. 4, Memphis, secretary. Meets first Monday of January, April, July, October, Hernando, 10 a. m.

East Mississippi Medical Society: T. G. Cleveland, Meridian, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: C. A. Everett, Bude, president; L. Costley, Meadville, secretary. Next meeting January, Quentin.

Hancock County Medical Society: D. H. Ward, Bay St. Louis, president; A. P. Smith, Bay St. Louis, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: B. B. Martin, Jr., Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday, each month, Mississippi State Charity Hospital, Vicksburg, 7 p. m.

Marshall County Medical Society· C. R. Senter, Byhalia, president; Herbert Phillips, Holly Springs, secretary. Meets second Thursday, each month, alternating between Byhalia and Holly Springs.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Newton County Medical Society: V. L. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: R. M. Adams, Ripley, president; A. H. Little, Oxford, secretary

Northeast Mississippi Thirteen Counties Medical Society: L. L. McDougal, Booneville, president; A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September, December.

Pike County Medical Society: E. M. Givens, McComb, president; T. Paul Haney, Jr., McComb, secretary. Meets first Thursday, each month, McComp, 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R. F. D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tallahatchie County Medical Society: G. Lacy Biles, president; G. D. Hightower, sec-

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday each month, Senatobia.

Tri-County Medical Society: R. B. Zeller, Hazlehurst, president; J. C. McGuire, Hazlehurst, secretary. Meets March 15, Wesson; June 14, Tylertown; Sept. 13, Monticello; Dec. 13, Brookhaven.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president; H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: F. M. Butler, Centervile, secretary. Meets Second Thursday, each month, with Amite County Medical Society, Centerville.

Winona District Medical Society: P. B. Brumby, Lexington, secretary.

HOSPITALS

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION, Ninth Annual Session, Jackson, April 18, 1938.

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary: First Friday, each month, 6:00 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital: Third Wednesday, each month, 7:30 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12:00 noon.

East Mississippi State Hospital: Every day except Sunday.

Field Memorial Hospital: Second Thursday, each month, 6:30 p. m.

George C. Hixon Memorial Hospital: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium: Third Thursday, each month, 8:00 p. m.

Greenwood Leflore Hospital: First Thursday, each month, 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital: Second Thursday, each month, 7:00 p. m.

Houston Hospital: Fourth Friday, each month, 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p. m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p. m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 7:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.

McGee General Hospital: Twenty-fifth each month, 6:00 p. m.

Mayes Hospital: First Monday, each month, 2:30 p. m.

McComb City Hospital: First Tuesday, each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Hospital: Second Thursday, each month.

Northeast Mississippi Hospital: First Monday, each month, 7:00 p. m.

Oktibbeha Hospital: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veterans' Hospital, Gulfport: Every Monday, Tuesday, Wednesday, and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth, or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

Interpreting Medical Literature

If You Do Not Agree, Let's Discuss It.

INTERNAL MEDICINE

L. J. Clark, Vicksburg

Garnett Cheney, San Francisco, in the October issue of *Archives of Internal Medicine*, in summarizing progress in internal medicine, has a lengthy and interesting article on gastro-enterology with particular reference to chronic gastritis. The necessity of classifying the various types as an accurate aid to proper therapy is emphasized. It seems that the flexible gastroscope is the proper solution. I predict that this instrument is going to become popular with rapid pace and in the next few years it will be of more assistance to the internist than the cystoscope will be to the urologist. Proper use and experience in interpreting various changes in the mucosa of the stomach will, of course, be of primary importance.

In the November issue of the *Annals of Internal Medicine*, Ziegler and Brice, of San Francisco, reported observation on analyses of 10,000 specimens of urine with particular reference to reaction and specific gravity and their relations to nephritis. This should be of importance to all physicians and surgeons and in every branch of medicine. They conclude that the ability of the kidney to excrete solids and to concentrate the urine is greater when the urine is acid than when alkaline or neutral; acid urine shows fewer abnormal findings than alkaline and neutral urines; prolonged alkalization of the urine apparently produces kidney damage; temporary alkalization of the urine is apparently of service in dissolving casts and thus opening blocked kidney tubules; alkaline self-medication should be discouraged; alkaline medication, as well as acid medication, should be controlled by the physician

Acid types of therapy, may prove superior to alkalization in the treatment of nephritis and its complications as well as in other urinary infections A definite correlation has been demonstrated between the reaction of the urine and its spcific gravity and acid urines generally have higher specific gravities than alkaline or neutral specimens and therefore, remove more waste products from the body.

* * * *

SURGERY

A. Street, Vicksburg

Incidence of Delayed Treatment of Cancer. —J.A.M.A., 109-1649 (Nov. 13) 1937 (Berlin Letter).

Dr. H. O. Kleine, of the gynecologic clinic of Heidleberg University, reviewed 802 cases of uterine cancer to determine the frequency of delay in treatment following the advent of symptoms; also, as to whether treatment was delayed by the patient or the physician. The patient was considered responsible for the delay if she allowed three months to lapse from the time of appearance of the initial symptoms before seeking medical advice. The physician was considered responsible for the delay if he prescribed inadequate treatment for four weeks prior to the institution of special anticancer therapy. Patients were found to be responsible for delay in 40 per cent of cervical cancer and 45.3 per cent of carcinoma of the corpus.

Physicians were said to be responsible for delay in 9 per cent of the cases of cervical cancer and 13.3 per cent of cases of carcinoma of the corpus.

Of cases of cancer of the cervix seen without delay, 74 per cent were operable; with delay, 49 per cent were operable.

Comment: This serves to remind us again to be cancer conscious when examining and treating patients. Some of the most curable cases of cervical cancer are those observed during routine examination when the patient presents herself with some other complaint, the cancerous lesion being found before any symptoms occur. It is also well to remember that inadequate cancer treatment is just as bad as or worse than delayed treatment. Recollection of the pitiful plight of the unsuccessfully treated patient will justify the most thorough and radical procedures, and if the patient can avoid a failure, she is well compensated for any discomfort and hardship she may have suffered during the treatment.

* * * *

Adenomyoma of the Inguinal Region.—Harry B. Neel. Surg. 2:769 (Nov.) 1937.

Dr. Neel reviews the history of adenomyoma, endometriosis and endometrioma, which are the usual terms employed to describe adenomatous lesions among women, the morphologic and functional manifestations of which are similar to those of the endometrium. Cullen described the first recognized case of adenomyoma of the round ligament in 1896. His patient, a woman aged 37, complained of a swelling in the right inguinal region, present eight years, which was severely painful, worse at the time of the menstrual period. Neel reports three similar cases encountered at the Mayo Clinic. These patients were relieved by surgical removal of the tumors.

Comment: It is important and helpful for us to bear in mind that a female patient presenting a mass in the lower abdominal region, the pelvic region, or the genital region, which becomes tender and painful at the time of the menstrual period, or just before the period, or just after the period, will often turn out to be endometriomatous. Some of these masses are painful at all times, but they will usually be more painful at the time of the menstrual period. Adenomatous masses in the inguinal region have been operated upon with the mistaken diagnosis of hernia (which is not uncommonly present in association with the endometrioma), and some have been incised thinking the mass was a suppurating inguinal gland. Familiarity with the symptoms of endometrioma, and knowing that it can occur in the round ligament and produce a mass in the inguinal region, should avoid any such mistake in diagnosis. Hernia of an ovary into the canal of Nuck occurs with great rarity; but it's differentiation from endometrioma should not be difficult.

Pain at the menstrual period from endometrioma does not come on at puberty with the beginning of menstruation, but appears later, usually in the third and fourth decade.

* * * *

PEDIATRICS

Harvey F. Garrison, Jackson

Communicable Disease Control in Private Practice.—Chester A. Stewart, and Erling S. Platoux: J.A.M.A. (Nov. 6) 1937.

This is a very interesting and instructing article. It is practical and valuable for the general practitioner.

The question as to when to immunize against small pox, diphtheria, scarlet fever, pertussis and typhoid fever is thoroughly discussed. In regard to this point, the authors state:

"A partial solution of this problem probably can be accomplished through the tendency displayed by young infants to be rather refractory to diphtheria and scarlet fever throughout a considerable period during which they are quite susceptible to smallpox and pertussis. This tendency apparently justifies observance of the general policy of temporarily deferring immunization against diphtheria, scarlet fever and typhoid fever in order that small pox vaccinations and pertussis innoculations may be completed in the first six months of life.

"Whether smallpox vaccinations should usually precede or follow pertussis inoculation is a debatable question. The customary failure of successful smallpox vaccinations when performed during the first three months of life to cause appreciable systemic reactions is a practical point in favor of the early administration of this preventive measure. Also the greater prevalence of whooping cough and its seriousness during infancy can be advnaced as important reasons for giving precedence to pertussis inoculations.

"Obviously, many factors deserve consideration when the details of individual programs of immunization are outlined. We venture, therefore, merely to suggest that smallpox vaccinations and pertussis inoculations be performed under the age of six months, and typhoid fever and scarlet fever be administered in the following twelve or more months."

The authors state that they have inoculated 335 children with Sauer's pertussis vaccine. It has been an average of one and three-tenths years since this series was inoculated and two of this group had pertussis in eleven and fourteen months after immunization, respectively; in one the pertussis was moderately severe and in the other it was mild. The only reactions noted when full doses were given were sore arms, slight fever, some edema and erythema. If the reactions were too severe, the authors advised giving it in six semi- or weekly half size doses, instead of the usual way of full doses at weekly intervals. The authors have given 135,000 or more skin test units of Dick's scarlet fever toxin to each of a series of 526 children, and they state:

"Owing to some uncertainty on our part, relative to the value and significance of the Dick test, this test was not applied as a matter of routine after immunization."

They state that when the scarlet fever

toxin was given in five separate doses, rashes, joint pains, fever and soreness of the arms were reported with considerable frequency. In order to offset these reactions, they advise giving it in ten weekly or semi-weekly half size doses. They state that two and seven-tenths years have elapsed since giving the 526 children this Dick's scarlet fever toxin, and that four members of this group had a mild form of scarlet fever—one in two months after inoculation and in the remaining three, six or more months after inoculation. It is claimed by the authors that from the results obtained in their experience, it could not be considered that pertussis and scarlet fever immunizations were as effective as those of smallpox and diphtheria inoculations.

The question of control of tuberculosis is still one of the contact problems, and the other methods of control are not considered practical at this time. In this regard, the authors have this to say:

"The observations lead us to believe that the control of tuberculosis is contingent exclusively on taking advantage of the inability of the causative agent of the disease to perpetuate itself and to survive through successive generations of the human race if the transmission of tubercle bacilli from person is prevented.

"The promotion of comprehensive programs of control designed to identify human disseminators of tubercle bacilli requires the cooperation of physicians engaged in private practice, who obviously are in excellent position to survey systematically the personnel of numerous household units. As a preliminary step, the physician may employ the tuberculin test for the purpose of quickly and accurately differentiating the uninfected members of each unit. Subsequently, the search for the open cases of tuberculosis that obviously require segregation can be completed by conducting periodic clinical, laboratory and x-ray examinations of each patient in whom the preliminary step of the survey disclosed infection."

Comment: This paper with discussions is most interesting. The authors advise giving smallpox vaccinations and pertussis inoculations by the time the child is six months old. They suggest vaccination against smallpox first and inoculations against pertussis next, finishing both before the sixth month. It is probably better to vaccinate against smallpox at the third month and against pertussis two months later, or the latter part of the fifth month. Then, within two or three months, when the baby is eight or nine months old, immunize against diphtheria with diphtheria toxoid.

We are frank to admit, that at the present time, we do not recommend the universal use of scarlet fever immunization. In selected cases, we would use it, preferably by the method by these authors. Our experience with the use of pertussis inoculations is about the same as that of the authors. We explain to the parents that if there is a slight chance of preventing or modifying pertussis, it is well to give it. Give the three doses, of 2, 3 and 3 c.c. respectively, once a week, or ten days apart, of Sauer's pertussis vaccine. Typhoid immunization should be given before the end of the second year. We would emphasize the importance of the authors' suggestions relative to the value of the tuberculin test in discovering positives in children and then by all means, find the contacts by doing the tuberculin test on the adult members of the family and the servants. If you do not find the open case in any of these, look to the other near relatives or immediate associates of the child. The x-ray should be used to confirm the diagnosis. It may be timely to suggest if more of us would do a tuberculin test and x-ray examination on all servants we would frequently remove the possibility of contacts in the family. We should not become careless in our efforts at immunization. We should become more interested and more active in this regard, as after all it is more important to prevent than to treat a case of smallpox, diphtheria, scarlet fever, whooping cough, or typhoid, and more especially the complications that often follow each disease.

May I plead for a new awakening of our activities for preventive medicine. This field rightfully belongs to the pediatrician and general practitioner. Let's do it!

Jackson, Dec. 4, 1937.

* * * *

RADIOLOGY

J. A. Beals, Greenville

The Question of Late Ill Effects Following Thorotrast Injection.—Thorotrast is a liquid preparation of the dioxide of the heaviest of all metals, thorium. It is used in diagnostic roentgenology as a contrast medium because of its great opacity to the x-rays. Unlike preparations of other heavy metals it shows no immediate toxicity in clinically useful amounts, even when injected intravenously. Owing to its great opacity to x-rays it has been used rather extensively since its introduction in 1930 for the radiographic demonstration of blood vessels, and has been injected in order to demonstrate most of the normal and abnormal cavities and channels of the body. It has the unique property of being deposited, after intravenous injection, largely in the liver and spleen, where it remains at least for years in amounts sufficient to permit visualization of those organs on the x-ray film. In this way, for the first time, a number of gross lesions of the liver and spleen have become demonstrable before operation or autopsy.

However, thorium is a faintly radioactive metal like radium except the latter is many times more active. The late lethal effects of an extremely minute amount of radium have been well known since Martland, 1929, demonstrated this as the cause of death among girls who were employed to apply luminous paint to the dials of clocks and watches. These girls died after eight years or more, from anemia or bone sarcoma.

While no deaths have as yet been reported as a late effect of the injection of the faintly radioactive thorotrast, F. R. Selbie (Lancet, Oct. 10, 1936) was able to produce sarcoma in rats which appeared in fourteen months after the subcutaneous injection of 0.2 c.c. of thorotrast. He pointed out that fourteen months in the life of a rat corresponds to a longer period in the life of man than thorotrast has been in use, so that it is as yet too early to say that no late effects will develop in humans.

More recently R. B. Taft (Radiology, Nov. 1937), of Charleston S. C., using an instrument of recent development, the Geiger counter, which is extremely sensitive to radiations, was able to demonstrate that the amount of radiation from a dose of thorotrast used in diagnosis was equal to that from the radium which proved fatal in the dial painters.

In this connectino C. R. Orr and co-workers of Buffalo, N. Y. in an exhibit at the June, 1937 A. M. A. meeting, demonstrated in a striking manner by the blackening of photographic plates the radioactivity of rabbits which had been injected with thorotrast.

It is the expressed opinion of the authors reported above, as well as others (and it is the reviewer's opinion) that the employment of this drug is dangerous and should be discontinued.

R. J. Reeves and J. E. Morgan (Radiology, Nov., 1937) using the method employed by Taft, conclude that 80 per cent of the drug remains in the organism at the end of four years, but prefer to reserve judgment on its late injurious effects. Editorially the Journal A. M. A., May 8, 1937, cautions the profession against possible ill effects which may not become manifest for ten or fifteen years.

Non Screen Procedure with the Potter Bucky Diaphragm.—Physicians conducting radiographic examinations in their offices, or requiring such examinations, should be interested in the recent article of Mr. Glenn W. Files, (Radiology, Nov. 1937). Files discusses and gives technical data for the use of a new film which is 5.5 times as sensitive as previously available film. This is true, however, only when the film is used without intensifying screens; it is not intended for use with screens. The greater sharpness of detail, particularly of bones, when films are made without screens is well known, but heretofore this technique has been limited mainly to radiographs of small parts, such as teeth, hands and feet.

Owing to the much greater speed of the new film, Files finds that it can be used satisfactorily with the Potter-Bucky diaphragm in the radiography of thicker parts, such as the skull, spine and pelvis, with considerable improvement in detail over films made in the same way but with intensifying screens.

* * * *

CHOLANGIOGRAPHY

H. B. Hunt et al of University of Nebraska (Am. J. Roentgenol. Oct. 1937) discuss 56 cases in which the condition of the biliary ducts was studied by radiography, after the injection, always under aseptic precautions, of a radiopaque medium. They prefer thorotrast as a contrast medium because of its opacity, fluidity and miscibility. Five cases were injected through a biliary fistula; 34 through a drainage tube left in the biliary tract postoperatively; and 29 were injected via the gall-bladder, cystic or common duct and studied during the course of operations on these structures.

The studies made after operation can be done at any time, usually in the x-ray room. The examination during operation is made by placing the patient on the operating table in appropriate position over a flat tunnel into which films can be slipped as needed and exposures made with a mobile x-ray machine. If there is an understanding co-operation between surgeon and radiologist the operation is not materially prolonged.

The studies during operation are especially useful in demonstrating the absence or presence of residual stones or other intrinsic or extrinsic obstruction to the common or hepatic ducts which the surgeon may be unable to discover, a not infrequent occurrence and onc of the chief causes of failure in biliary tract surgery. In fact the operation may be shortened and much traumatism to the ducts may be avoided by demonstrating their patency.

Similarly the postoperative studies may demonstrate unrelieved stricture, overlooked stones, persistent mucus plug, spasm or inflammatory obstruction of the sphincter of Oddi. Obstructive spasm of the sphincter due to morphine, and relaxation of the spasm by nitrites has been demonstrated.

The authors discuss the characteristics of the x-ray shadows in the several obstructive conditions as well as the normal appearance. Although slight pressure is employed in making the injection, reflux filling of the hepatic ducts is expected and is diagnostically valuable; reflux into the pancreatic duct occurred five times, a condition to which little significance is attached.

A few patients apparently had a rise of temperature of 1 to 3 degrees F. following injection, which subsided within 48 hours. Some experienced epigastric pain during injection and for a time afterward. The authors caution against making injections in the presence of acute cholangio-cystitis because of the possibility of spreading infection to the pancreas. Accidental extrusion of thorotrast into tissues outside of the ducts occurred in the authors' experience but caused no damage.

The method is recommended for use at the operating table, not as a routine, but in all cases wherein the symptoms and signs suggest disease of the common duct; and postoperatively to establish the patency of ducts before drains are removed.

C. E. Hufford to Toledo (Am. J. Roentgenol., Feb., 1937) reports favorably on postoperative cholangiography in 45 cases. Surgeons may be familiar with the equally favorable reports on these methods by W. Walters of the Mayo Clinic (Surg. Gynec. & Obst, etc., Oct., 1936) H. L. Baker and C. M. Bacon, of Chicago, (Surg. Gynec. & Obst., etc., Aug., 1937) and the article of P. L. Mirizzi, of Argentina (Surg. Gynec. & Obst., et., Nov., 1937) one of the early and foremost exponents of this method.

* * * *

Radiation Therapy in Menorrhagia from Causes Other Than Cancer.—Sterilization of women, either permanent or temporary, can be effected by irradiation, with x-rays or radium or a combination of both. The procedures are not difficult, not dangerous if reasonable care is exercised in the selection of patients, and usually produce no temporary or permanent ill effects.

In some localities popular knowledge of the ease and safety of these methods has created a forceful demand for their unethical employment.

There are numerous legitimate indications for sterilization of women, one of the principal ones being the troublesome, often debilitating, menorrhagia of the menopausal meriod. R. H. Lafferty and C. C. Phillips, of Charlotte, N. C. (Radiology, Sept., 1937) discuss their experience with irradiation sterilization of 327 cases mainly of this type. They were able to cure 95.6 per cent of these patients.

Menopausal disturbances were mild in 67 per cent and severe in only 3 per cent. They especially inquired into the effect on the sexual life of 58 of their cases. They found that generally there was a reduction in desire and capacity for a time, but these returned to normal. In two patients libido was completely lost; in seven there was a marked increase.

The authors' excellent results undoubtedly depend greatly upon their selection of cases. They do not specifically mention as contraindication the presence of pelvic inflammatory disease, but do list such conditions as rapidly growing fibroids, those causing pressure symptoms demanding quick relief, pedunculated tumors, uterine polyps, ovarian cysts and tumors that have undergone cystic degeneration, extreme mental depression and cases in which bleeding develops or continues after partial hysterectomy. They believe that no woman in the child bearing period, having no tumor, should be subjected to irradiation until all other methods of treatment short of hysterectomy have been tried and failed. The authors make an interesting observation that in one of the 313 cured cases, many of which have been followed for years, have developed cancer of the uterus or breast, whereas an equal number of women of this age in the general population would be expected to show a considerable incidence of such cancers.

* * * *

Roentgenologic Aspects of Chronic Gastritis.—This subject is more popular in the literature of Europe than it is in the American, possibly because the condition is of less frequent occurrence in this country.

The increasing use of the gastroscope and roentgen studies of the gastric mucosa which has been coated with a thin layer of a suspension of barium sulphate have stimulated interest in the gross morphologic changes which are characteristic of chronic gastritis. These changes are both atrophic and hypertrophic in character.

A. Ausprenger and B. R. Kirklin (Amer. J. Rientgenol. Oct., 1937) of the Mayo Clinic offers an admirably critical survey of the value of roentgen findings. "The most important and frequent roentgenologic sign of gastritis is the presence of localized, ragged, irregular hypertrophic mucosal folds." Mucosal erosions, wart-like granulations, and pseudopolypous formations are typical but rarely encountered. They do not consider indirect signs valuable except that when duodenitis and enteritis can be demonstrated the presence of gastritis may be inferred.

The authors point out that normally, as well as in conditions other than gastritis, the mucosal pattern of the stomach is subject to wide variations both between individuals and in the same individual from day to day. There are also considerable technical difficulties attached to the roentgenologic demonstration. They conclude, without presenting a statistical basis for their experience, that "only a small percentage of cases of gastritis can be diagnosed by roentgen examination." They consider gastroscopic findings the more reliable.

* * * *

Biological Action of Neutron Rays.—Out of the new science of atomic physics has come the discovery of neutrons by Chadwick of Cambridge University in 1932. This discovery may revolutionize the treatment of cancer.

Neutrons are small particles of matter having nearly the mass of a hydrogen atom. They belong to the nuclear structure of atoms, but carry no electrical charge. They can be freed from the atoms of the rare metal beryllium by several methods, but at present most effectively by bombarding that element with a stream of atoms of heavy hydrogen (denterous) which have been accelerated in motion by the application of several million volts. The neutrons leave the beryllium as a stream of fast moving particles which have the power of penetrating matter for distances which are measured in centimeters. In their course they cause intense ionization. In this respect, but in few others, they are like x-rays and gamma rays and as would be expected their effect on living tissues is of the same destructive nature.

G. L. Locher (Amer. J. Roentgenol. July, 1936) was the first to present this subject in readily available medical literature, calling attention to the possible therapeutic uses of neutron radiation.

In Radiology (Sept.) 1937, E. O. Lawrence, of the University of California, reviews what has been discovered by himself and others in the realm of biologic effects. Zirkle and coworkers (Amer. J. Cancer, Mar., 1937) had already established that for equal amounts of ionization, that produced by neutrons was from two to five times more destructive than that produced by x-rays when tested on fly eggs, wheat seedlings and fern spores.

Lawrence found that neutrons were 3.8 times more efficient in their killing effect on mice.

The question immediately arose whether the ionization caused by neutrons has a greater killing effect upon cancer cells than upon the normal cells of the host. This was tested by Lawrence by radiating particles of a transplantable mammary cancer of mice, then making the transplants, and determining the amount of radiation necessary to prevent their growth. He found that for neutrons the tolerance of the mouse is better than the tolerance of the tumor cells by a ratio of nine to one; whereas for x-rays the ratio is only six to one.

It is evident that if this improved ratio of tolerance holds good for spontaneous cancers of humans we have a new radiation in neutrons that is considerably more efficient than x-rays or radium in the treatment of cancer.

At present the experimental apparatus for production of neutrons is large, expensive, and does not operate smoothly, but Lawrence believes these are mechanical and engineering difficulties that can be overcome if the superiority of the new ray proves to be sufficient to create the demand. It is thus possible that our present supply of radium and our deep x-ray machines, together with what facility we have developed in their use, may be supplanted by entirely new equipment and a new technique.

The Postural Treatment of Infantile Colic.—Wiliam Snow, of New York City, (Amer. J. Roentgenol., Nov., 1937, confesses that he was for years confused by the common occurrence of gas shadows of the small intestines in roentgenograms of infants under three months of age, an entirely abnormal finding in older children and adults. This condition, which he suspected was the cause of infantile colic, he found could be prevented by laying the infant in a semi-inclined position, or on its abdomen or right side so that swallowed air could escape by the esophagus rather than the pylorus. This practice he says, effectually prevents the occurrence of colic. The practice of laying the infant across the shoulder for a short time after feeding he says is not sufficient.

* * * *

NEURO-PSYCHIATRY

Charles D. Mitchell and F. A. Donaldson
Whitfield

The Irritative Treatment of Schizophrenia.—Am. J. Psychiat. 94 (Sept.) 1937. — The treatments devised in the past for schizophrenia are as numerous as the concepts of its etiology and both are changing constantly from time to time. Many workers have determined that there are changes in the metabolic and chemical processes in schizophrenia. These changes indicate that there exists a type of sluggishness in the bodily economy of schizophrenic patients. This sluggishness may be translated theoretically in terms of lowered metabolic activity of the brain. We may further state that there may be a functional barrier to facile absorption or assimilation of nutritive elements set up in the brain of such a patient. The mental changes resulting from this barrier would become proportionately irreversible as the disease progresses. A therapeutic routine directed against this functional barrier before actual irreversible changes have occurred may reinstate the normal nutritive mechanisms thus providing an unblocked pathway fo normal mental functions.

The following therapy is in the nature of an irritative or stimulative means to combat this blocking. According to Meduna, the irritative therapy of schizophrenia involves the setting up of a temporary epileptic state by the use of convulsive drugs.

Methods and Rationale of the Treatment

Part A. The diagnosis is established as soon as possible and the patient's family contacted to explain and receive consent for the complete laboratory work is done with the blood chemistry values and complete urine determinations once weekly. The patient is placed on standard alkaline diet arrnged by the dietitian. The diet must include adequate vitamins, calories and bulk. He is given 1.30 gm. sodium bicarbonate three times a day. The urine is tested daily for alkalinity to litmus during the first five days; thereafter twice weekly for the extent of the treatment. Fluid intake is set at a minimum of 2 liters per day. No sedatives of any type are given during the period of treatment.

Part B. The two convulsant drugs employed are camphor in the 25 per cent oily solution given intramuscularly and metrazol is given in 10 per cent aqueous solution intravenously. A freshly prepared sterile solution of camphor is injected twice daily only after the urines have been alkaline for two days. The initial dose is 16 and the subsequent doses are increased at the rate of 4 c.c. per day. When metrazol is used the injections are given once every other day, starting at 5 c.c. and subsequent doses are increased at the rate of 1 c.c. at each injection. When camphor is employed and convulsions occur at any given dose the injection is omitted the following day, and the next dose is the same as the convulsive dose. If convulsions do not occur after four injections, three or four days are allowed to elapse before the injections are resumed, and then at the increase of 4 to 6 c.c. The maximum dose of camphor is set at 56 c.c. In the case of metrazol the doses are increased as stated whether or not convulsions occur. The maximum dose is set at 16 c.c.

When convulsions occur, the patient receives the routine (immediate) care usually given to epileptic patients excluding the use of sedatives. In the case of camphor, convulsions are found to occur from fifteen minutes to three hours after the injection, and as high as six individual convulsions were noted. When metrazol is used only a single convulsion immediately ensues and prompt attention must be given. The dosages suggested above are flexible. When convulsions resulting from any dose are unusually severe or prolonged, the subsequent doses must not be increased as rapidly as stated. The individual reaction to a given dose is the sole determinant of subsequent doses.

While the patient is under treatment the following observations are charted: (a) occurrence and description of convulsions as to number, severity and whether they are partial or general (the phases are noted as well as the nature of the post-convulsive state); (b) occurrence of irritability when annoyed or bothered by others, as well as cooperative attitude; (c) state of activity—whether or not accessory phenomena are intensified and muscular and impulsive activity are increased. The patient is frequently interviewed and any mental changes noted.

The contraindications as listed by Meduna are (a) failing or decompensating cardiovascular system; (b) an acute febrile condition; (c) menstruation. To these may be added (d) severe anemia or cachexia; (e) any abnormality of the blood or urinary constituents; and (f) previous history of severe cranial injury with subsequent unconsciousness.

Author's Discussions of Results

Twenty cases of schizophrenia of this type were treated by the irritative therapy as described above. In eleven cases the convulsant drug used was camphor; in seven cases metrazol; and in two, both were employed. The selection of drugs was arbitrary. The small number of cases precludes the establishment of percentage values or averages. Of these cases there were fifteen who improved sufficiently to be allowed to go home; two cases were improved to a lesser extent and state hospitalization was still necessary; three cases were unimproved. In the first group two cases who were recommitted after release, ought to have had more therapy. In most cases the drugs employed are not entirely eliminated from the body for at least ten days after the last injection, and any improvement while still under the intoxicating influence of the convulsant drugs ought to be tested, as it were, by allowing the patient to eliminate the drugs in order to obtain a more correct, "non-irritated," mental status. In two cases whose periods of treatment were far in excess of thirty days, it was made possible to continue their therapy and observation over a long period of time. In other cases the period of treatment closely approximated the thirty day period. It is interesting to note that in this series, improvement occurred in four cases whose illness had been present over two years, and in one case in which illness had been progressing for at least six years.

Summary and Conclusions

1. A recently developed method of treatment of schizophrenia along bio-therapeutic lines was presented. The technique and rationale of the irritative therapy modifying the procedure previously reported by Meduna was described.

2. Twenty cases of schizophrenia of various types and durations were treated. Remissive changes or improvements sufficient to allow release were established in 15 cases. Of those 15 cases, two had rapid relapses which could reasonably be attributed to insufficient treatment. Two cases showed some improvement, and three cases remained unimproved.

3. It is concluded as far as possible, from this small series, that irritative therapy of schizophrenia offers hopeful possibilities for the productions of remissive changes in the disease process. It is, as yet, premature to indicate whether or not true remissions are taking place and more work is being done in this direction.

4. This offers another treatment of schizophrenia along the lines of "shock" therapy that does not require the expensive outlay for treatment that is required in the insulin "shock" therapy.

Whitfield, Dec. 3, 1937.

* * * *

EYE. EAR, NOSE AND THROAT

Alston Callahan, Vicksburg

Treatment of Detachment of the Retina (H. Arruga.)—Treatment of this condition has been going through various stages of evolution for the past fifty years and at last due to the development of many applications of electricity successful results are obtained in the majority of cases. A new problem which the interest in the modern treatment of detachment of the retina has created is that of the pathogenesis. The role of the retinal holes in the development of a detachment is incontestable; but the difficulty is to interpret how these perforations act. Dr. Arruga believes the adhesions which exist between the framework of the vitreous and that of the retina are the agents which produce the tears.

Following the most extensive method of treatment as generally agreed upon by most ophthalmologists is the use of diathermy. More often it is used by making diathermy punctures, so that the subretinal fluid will be drained. Walker needles, small platinum-tipped needles with an attached thread, are used most commonly. Surface diathermy is often used for flat detachments.

The prognosis depends upon the clinical variety of the condition in each case. A better prognosis is offered by those in which the holes in the retina may be seen.

The effectiveness of diathermic therapy is accepted beyond question and it is no longer necessary to inform a patient that because he has a detached retina he will become blind. The longer time has elapsed between the occurrence of the detachment—or more probably separation—and the operation, the poorer the prognosis. Retinal separation is not difficult to diagnose except in the very early stages where it may be confused with an interocular tumor. In cases of either diagnosis being made it is essential that such cases be handled promptly.

Surgical Management of Ptosis, with special reference to the Superior Rectus Muscle (P. Chalmers Jamison.)—The diverse operative procedures for the correction of this condition are reviewed. A new operation is reported in which the following principles are adopted: (1) the principle of the use of the entire strength of the unmultilated superior rectus muscle; (2) a direct incision into the cartilage, with entrance into a pocket prepared for the reception of the folded muscle, instead of the incision into the levator muscle or the tarso-orbital fascia into the postorbital region; (3) shortening of the muscle and consequent elevation of the lid by the folding of the attached muscle on itself prior to its introduction into the pocket and an added method of elevating the tarsus by placing the incision in the cartilage farther below the curve; (4) the secure attachment of a folded shortened muscle.

This operation is not introduced as a substitute for all other methods but adds another type in the wide field from which the ophthamologist may select.

Dr. Jamison is widely recognized in the field of muscle surgery and this additional procedure adds to the procedures available. The logic of using an uncut muscle is easy to recognize and this procedure would seem to be very effective.

ORTHOPEDICS

Thomas H. Blake, Jackson

Bumper and Fender Fractures.—F. G. Dyas and M. L. Goren: Surg. Gynec. Obst. 690 (Nov.) 1937.

These authors describe fractures about the knee joint that are becoming quite common because of pedestrians being struck by autos. The bumper and fenders are at a level to cause injury to the tibial tuberosity. Vascular injury is not uncommon with resulting gangrene of foot. In many cases a fracture of the tuberosity of the tibia results with a depression of the weight bearing surface. In such cases a knock knee or bow leg deformity will be the outcome unless excellent replacing and holding of the fragments are accomplished. These writers describe a method of opening the fracture site, raising the depressed fragment and holding it in position by placing pig grafts beneath it which have been removed from the opposite tibia with a motor saw.

The opinion of the abstractor of this article is that this procedure should be used as a last resort. It is no simple matter opening and replacing crushed spongy bone. If after three or four weeks the x-ray reveals that manipulation has been unsatisfactory, then it may be wise to operate.

Fractures of the Neck of the Femur.—Melvin S. Henderson, Editorial, Surg. Gynec. Obst. (Nov.) 1937.

This article emphasizes that the internal fixation of fractures of the neck of the femur is the treatment of choice if good anteroposterior and lateral x-rays are obtainable. He points out that twenty-five percent of the cases will get a poor result because in that many cases the head of the femur has little or no blood supply.

Chronic Functional Lesions of the Shoulder.—A. W. Meyer, Arch. Surg. (Oct.) 1937.

This is an article of interest almost entirely to the orthopedic surgeon, traumatic surgeon and to those people interested in occupational trauma resulting from repetition over a long period of time of the same repeated small injury. The author gives an excellent detailed report on many dissections of shoulders in cadavers most of which were sixty years or older at time of death. Thirteen types of chronic injuries are described with photographs of the dissecting room specimens.

Laxity of Radio-Ulnar Joint Following Colle's Fracture.—Robert K. Lippman, Arch. Surg. (Oct.) 1937.

This is a good article for those interested in treating fractures. The anatomy of the wrist is reviewed with special reference to the ligaments. Cadaver experiments are described in which the various re-enforcing bands between radius and ulna were severed. These were sectioned singly and also combinations of sections were done. The resulting laxity at the radio-ulnar joint was then tested. The greatest laxity was found when the articular disk and the dorsal radio-ulnar ligament were severed. Clinically a number of patients suffer after healing of what appears to be an excellently reduced fracture. This is often due to the ruptured ligaments. A rupture of the ligaments can be demonstrated by a laxity between radius and ulnar after the fracture has been reduced. Placing the wrist in supination relaxes the ligaments and permits the best chance of healing without a loose joint. This is an excellent point well worth remembering. It should also be remembered that placing the wrist in flexion and ulnar deviation makes treating the fracture simpler.

Results of Pyriotherapy at the Vanderbilt University Hospital.—R. H. Williams, South. M. J. (Nov.) 1937.

The author reports the use of the Kettering hypertherm in a series of cases among which were six patients with gonorrheal arthritis of less than four weeks' duration. Five made complete recovery. The other improved but had inadequate treatment. Ten patients with arthritis of four or more weeks' duration were treated. In every case all symptoms disappeared except two had ankylosis when treatment began. Three patients had a persistent low grade pain.

These findings are in keeping with those of other investigators using this treatment.

Local Overgrowth.—F. A. Chandler, J.A.M.A. (Oct.) 1937.

Several interesting pictures show cases of overgrowth of various portions of the body. Surgical mechanical correction helps many cases. The author pleads for attempts to find the underlying cause. Nothing new is added to our present understanding of the cases in this paper.

Gonococcic Arthritis; Parthenogenesis, Mechanism of Recovery and Treatment.—C. S. Keefer and W. W. Spink, J.A.M.A. (Oct.) 1937.

This is an excellent article. The authors report on 140 cases involving many joints. The affected joint is always aspirated and depending on the findings, the treatment is established. The fluid is cultured. Cases with positive cultures do not have as good prognosis as those without organisms. Also fluid with cell count over 40,000 gives a poorer prognosis. Twenty-four per cent had positive cultures. In joints where the fluid is thick containing mucus and fibrin the prognosis is poorer than in the more fluid type. These joints have a small incision made and the joint is washed out. The incision is then sutured and closed without drain.

Treatment consists of serum, artificial increase in body temperature and drugs. The serum has been of little value. High temperatures induced by the hypertherm have given good results. The increased temperature apparently kills the organisms. Sulfanilamide was used and in two cases the joint fluid was found to be sterile on the second day. By no treatment used before have such rapid results been obtained. The dosage of sulfanilamide was not stated. Generalized building up of these patients was used in this series of cases as the disorder is frequently prolonged and anemia with loss of weight results. Motion and massage are encouraged about the affected joints to encourage strength and prevent atrophy. This encourages freedom of motion with a minimum of adhesions. The arches of both feet were supported to prevent weakness and pain on weight bearing.

The heat treatment cannot be given everywhere, but sulfanilamide is easily available to all practitioners. Traction should be applied to the affected extremity and in most cases a good result can be expected.

Jackson, Nov. 29, 1937.

PUBLIC HEALTH

Felix J. Underwood, M.D., Jackson

Infant Mortality in the United States, The Child, 2:3 (Sept.) 1937.—Infant mortality figures for 1935 show that prenatal and natal causes were responsible for more than half of the deaths of infants in the first year, and about four-fifths of the deaths of infants in the first month of life. The mortality rate from these conditions, which include premature birth, congenital malformations, injury at birth, congenital debility, other diseases of early infancy, syphilis, and tetanus, was 29.3 for the first year and 26.1 for the first month. Respiratory diseases were second in importance as a cause of death among infants both in the first year and the first month of life. Gastrointestinal conditions were third in importance.

The infant mortality rate in 1935 in rural areas was 57 per 1,000 live births as compared with 54 in urban. Prior to 1929 urban rates were higher than rural. Infant mortality rates in both urban and rural areas have decreased but the rate of decrease has been significantly faster in urban than in rural areas. The decrease in both urban and rural districts has been largely due to reduction in mortality from gastro-intestinal diseases but the rate of decrease has been greater in the cities than in country districts.

The mortality among negro infants in each period of the first year of life decreased greatly during the period 1915-35, but the 1935 rates were practically as high as those for white infants in the earliest years of record.

Highlights of a Great Congress.—R. R. Spencer, The Health Officer, 2:7 (Nov.) 1937.—One of the most impressive highlights of the 66th annual meeting of the American Public Health Association held recently in New York City was the address of Miss Josephine Roche, Assistant Secretary of the Treasury. She emphasized the relationship between health and economic status. This has been revealed recently in a survey of 750,000 American families representing 3,500,000 individuals. This survey, conducted by the United States Public Health Service, has shown that the death rate among Americans with incomes of less than $1,000 a year is twice that of the rest of the population. This observation was the result of an anlysis of the ten major diseases that cause three out of every four deaths in the United States. For seven of the ten diseases, the survey shows, the death rates mount steadily as the income goes down. The seven include heart disease, cancer, pneumonia, diarrhea, kidney disease, tuberculosis and syphilis. The death rate from respiratory tuberculosis is seven times as great among unskilled workers (who are classed as the low income group) as among professional workers. Pneumonia kills three and one-half times more unskilled workers than professional. Death rates from diarrhea and syphilis are twice as high for the unskilled as for the professional. Cancer's toll of the unskilled worker is fifty per cent higher than that of the professional. The death rate from all causes is more than twice as high for the unskilled worker as for the professional.

Miss Roche further stated that "the challenge which confronts public health workers today is in essence the same as that which confronted the great leaders of the past when human life was wiped out by epidemics and infectious diseases. The objective for which they strove is identically the same as yours today—to save life, conserve health, to prevent death and disease . . . . . you take on no new function when you turn to new ways and means to meet this unchanging objective. You only have the fact that your battle in the laboratory to find and conquer the causes of destructive diseases, and in the field to apply this knowledge, must not only be continued but widened and extended to the social and economic front. Death and diseases are no less your responsibility to prevent because the cause for them has shifted."

A Comparative Study of Immunization.—E. B. Shaw, American Journal Diseases of Children, 54:5 November, 1937.—The private physician or the specialist is constantly confronted with the problem of using new vaccines, new drugs, and other preparations in the treatment of the sick. It is essential that his knowledge be adequate regarding both the theory and the results of clinical trial under experimental conditions before he proceeds with attempts at general or even casual use. The author correctly states that for purpose of comparing various immunizations that there are three criteria that should be thoughtfully studied. These are effectiveness, usefulness and safety in the measure proposed. A useful and effective method may justify some increase in the risk; a method of little usefulness and of uncertain effectiveness is on the contrary, inconsistent with the slightest danger in its performance. From the experience of well over a century smallpox vaccination may be considered effective and sufficiently useful to justify the various risks which have been shown to attend it.

Mass active immunization protects against diphtheria safely, usefully and effectively. Immunization against typhoid fever by the injection of vaccine has been demonstrably useful where the disease is epidemic. The duration of immunity is variable and the dangers are limited to unpleasant reactions.

In scarlet fever immunization there is considerable conflict of opinion regarding the effectiveness of the method. A great many observers have been deterred from the extensive employment of inoculation because of severe reactions which are not uncommonly encountered.

The actual risk in active immunization against whooping cough is inconsiderable but the large, repeated injections occasion some discomfort. The results of field tests regarding their effectiveness are at present conflicting and although some evidence seems to indicate that a certain protection is confered, other evidence is at variance with this indication.

Vaccines Against The Common Cold.—Leverett D. Bristol, American Journal Public Health, 27:10 (October) 1937. This study is based upon the possible value of cold vaccines among a group of over 100,000 industrial employees of the American Telephone and Telegraph Company for a period extending from five to seventeen years. Exact scientifically controlled methods of experimentation were possible so that all data presented are largely based on the opinions and actual experience of management, medical personnel, and employees, formulated over a period of several years as to the possible benefits derived from such vaccines.

In all instances standard stock vaccines were used and were made available only to those employees or their physicians who voluntarily requested them, no particular attempt being made to promote their use in a company-wide basis. The chief interest of the company has been to encourage and to assist any measure that might decrease sickness disability among employees and to cooperate in making surveys of possible results.

This study of experiences with and results from vaccines against the common cold among workers in industry indicates an apparent reduction in the severity, duration, and complications of acute respiratory diseases. There is little evidence that such vaccines have materially reduced the incidence of the common cold.

In the prevention of the common cold by people generally the importance of good health habits, proper ventilation, a daily diet including milk and plenty of fresh fruit and vegetables as well as extra nourishment through the use of cod liver oil, attention to diseased tonsils, sinuses, and other foci of infection should be especially stressed whether vaccines are taken or not.

STATE BOARD OF HEALTH

To the meeting of the Southern Medical Association in New Orleans, November 30-December 3, went Dr. Felix J. Underwood; Dr. H. C. Ricks, director, county health work and epidemiology; Dr. George E. Riley, supervisor, malaria control division; Nelson Rector, assistant supervisor; Thomas T. Brackin, Jr., entomologist; William H. Porter, project supervisor; Flavel D. Eteridge, Jr., Thomas A. Randle, George L. Corley, Jr., and Samuel A. Redding, district supervisors, malaria control division; Q. Edward Gatlin, supervisor, medical education; Miss Opal Regan, advisory nurse, field unit; and Misses Lillian Harris and Sarah Shanks, secretaries, county health work and epidemiology.

At this meeting Dr. Underwood discussed two papers on poliomyelitis, addressed a business club, and made one broadcast.

Dr. Riley and Mr. Rector presented papers before the National Malaria Committee, entitled respectively, "The Need for Cooperation of Various Agencies in the Control of Anopheles Breeding in Impounded Water," and "Different Phases of Permanent Drainage for Malaria Control in Mississippi."

Elected to office were Dr. H. C. Ricks, named secretary of the public health section, and Mr. H. A. Kroeze, chosen first vice president of the sanitation section.

Miss Gladys Eyrich, supervisor of mouth health, on November 10, lectured to health officers taking postgraduate training at Vanderbilt University, Nashville, Tennessee. The two days prior Miss Eyrich spent in Atlanta, Georgia, observing mouth health activities.

During November mouth health talks and inspections were made by Miss Eyrich in schools of the following towns: Louisville, Philadelphia, Clarksdale, Cleveland, Greenville, Canton, Flora, Starkville and Ackerman.

Dr. J. W. Dugger was recently appointed state surgeon for the Mississippi Division of Sons of Confederate Veterans. Mr. J. O. Prude, Jr., Amory, is State Commander and notification of Dr. Dugger's appointment came through Mr. Prude.

The address of Dr. R. N. Whitfield, director of vital statistics, delivered before the American Public Health Association in New York City and entitled "The Homicide Situation in the United States" created wide publicity not only in New York papers, but through the Associated Press and in London. The reading public evidently was waiting for an expression of the opinion voiced in this paper due to widespread impatience with lack of law enforcement.

Dr. Guy S. Millberry, dean of the College of Dentistry, University of California, San Francisco, and president-elect of the western section of the American Public Health Association, was a recent guest of the State Board of Health.

Covering the entire nation in a public health survey, Dr. Millberry conferred in Mississippi with Dr. Underwood, Miss Gladys Eyrich, supervisor of mouth health, and Dr. William R. Wright, dental member, State Board of Health. He also visited the State Tuberculosis Sanatorium and the State Hospital at Whitfield.

Mr. C. L. Roshore has been appointed district supervisor of malaria control in the southeastern division. With headquarters at the Forrest County Health Department, Hattiesburg, Mr. Roshore will be engaged in making surveys and plans for malaria control drainage.

The new project engineer of the malaria control division is Mr. William H. Porter, who is at present promoting and supervising screening in the region of the Sardis reservoir. Materials and labor for screening are paid for by the individuals benefited.

The public health section of the Mississippi State Nurses' Association in conference at Greenville, November 8 and 9, was conducted by Miss Mary D. Osborne, R.N., supervisor of maternal and child health and public health nursing, State Board of Health.

The program was as follows: "Greetings," Dr. Felix J. Underwood; "Syphilis Control and Its Relation to Public Health," Dr. D. V. Galloway, director, Lauderdale County Health Department, Meridian; "The Graduate Nurse as a Health Messenger," Opal L. Regan, R.N., Jackson; "Trends in Public Health Nursing in Rural Schools," Mary Brooke De Las, R.N., Indianola; "Conduct of the Poliomyelitis Clinic in Jackson," Elise Smith, R.N., Jackson; "Notes on American Public Health Association Meeting in New York," Margaret Meade, R.N., Jackson.

Mr. H. A. Kroeze, director of sanitary engineering, State Board of Health, spent a week at Vanderbilt University, where he delivered a series of lectures.

Addressing the sanitarians enrolled at the Tennessee institution, Mr. Kroeze delivered four talks on food sanitation and three on private water supplies.

On November 18, Dr. Underwood addressed the Rotary Club of Ripley and the Tippah County Board of Supervisors on the advantages of a full-time county health department.

Dr. H. C. Ricks, director of county health work and epidemiology, discussed the syphilis control program before the Corinth Rotary Club on November 18.

Named Mississippi Chairman of the President's Ball to be held January 29, Dr. Felix J. Underwood will organize both entertainment plans and the campaign for the new National Foundation for Infantile Paralysis.

On November 12, Dr. Underwood addressed the Lions Club, Jackson, on "The Challenge of Syphilis and How to Meet It." Stressed was the large proportion of deaths from other causes due to syphilis, "the great imitator." "One-third of all deaths from heart disease are syphilitic in origin," Dr. Underwood said.

The Board of Health radio program for November, broadcast at 10:00 o'clock each Saturday morning, was as follows: On November 6, Mrs. Mollie Hodges, field representative, American Red Cross, Meridian, spoke on "A Battle on American Scene;" on November 13, Dr. Underwood cited valuable preventive and curative measures for heart disease in a talk entitled, "Mississippi's Greatest Killer;" Mr. H. A. Kroeze, director of sanitary engineering, declared "Pasteurized Milk—Your Best and Safest Food" on November 20; while on November 27 a Christmas seal broadcast was presented by Alexander Woollcott, celebrated author and radio speaker.

Present at the organization meeting of the Mississippi Social Hygiene Association in Meridian were Dr. Felix J. Underwood, Dr. H. C. Ricks, and Dr. A. L. Gray.

Dr. Underwood addressed the group on "Public Health and the Venereal Diseases," while Dr. Ricks spoke on "Our Syphilis Problem in Mississippi."

Dr. James Wallace, field director of the rural health conservation contest sponsored by the U. S. Chamber of Commerce in cooperation with the American Public Health Association, visited Adams, Coahoma, Forrest, Jones, Lauderdale, and Pike Counties during November relative to their entering this contest. Pike county won first place in the southeastern division last year while Lauderdale and Coahoma Counties received honorable mention.

Col. J. A. LePrince, Sanitary Engineering Director, U. S. Public Health Service, recently consulted with Dr. George E. Riley regarding impounded waters in Mississippi and the meeting of the National Malaria Committee to be held in New Orleans during the Southern Medical Association Convention.

Dr. Felix J. Underwood was elected to the Rockefeller Foundation Board of Directors and will serve this organization for the next three years. One of a six-member board to decide the policies of the Foundation throughout the world, Dr. Underwood will take office January 1, and will attend his first board meeting in April. Dr. Thomas Parran, Surgeon General of the United States, is now a member of this board.

Felix J. Underwood, Executive Officer.
Jackson, Dec. 6, 1937.

AMITE AND WILKINSON COUNTIES MEDICAL SOCIETIES

The joint meeting of the Amite County and Wilkinson County Medical Societies was held at Field Memorial Hospital, Centreville, last Thursday evening. Our wives attended this meeting with us. A delicious banquet was served by Miss Richardson and an interesting program was enjoyed.

Dr. Cecil Lorio, pediatrician, Baton Rouge, was the guest speaker. His subject was "Birth Injuries." He discussed a phase of birth injuries and their sequelae that meant quite some consolation to older practitioners whose obstetrical practice included many cases that perhaps might have been inevitable and unavoidable rather than due to a faulty technic on the part of the handicapped "country doctor."

At this meeting the loss by death of our president and outstanding member, Dr. W. S. Stewart, Gilsburg, caused a spirit of sadness to prevail.

Crosby, D. H. Thornhill,
Nov. 19, 1937. Secretary.

CENTRAL MEDICAL SOCIETY

The annual meeting of the Central Medical Society was held at the Robert E. Lee Hotel Roof, Dec. 7, 1937, with cocktail hour from 5:30 p. m. to 6:00 p. m. and dinner at 6:00.

PROGRAM

1. Address.—Dr. W. L. Little, President, Mississippi State Medical Association.
2. Address.—Dr. J. E. Green, President-Elect, Mississippi State Medical Association.
3. Reports of the Southern Medical Association.
4. Address—Medical Ethics.—Dr. John Darrington, Yazoo City.
5. Business Meeting and Election of Officers for 1938.

Jackson, Gayden Ward,
Dec. 1, 1937. Secretary.

COAST COUNTIES MEDICAL SOCIETY

At the regular monthly meeting of the Coast Counties Medical Society, comprising the Coast Counties of Harrison, Stone, Hancock, and Jackson, Dec. 8, the following officers were elected:

President.—W. W. Lake.
Vice-President.—A. C. Hewes.
Secretary-Treasurer.—D. L. Hollis.
Delegate to State Medical Association.—E. B. Van Ness
—Alternate Delegate.—Chas. LeBaron.
Member of Committee on Medical Defense.—R. W. Burnett.
Member of Board of Censors.—F. O. Schmidt.

We have a total membership of sixty-five and our Society is a very active one having scientific programs at each monthly meeting.

Beginning January 3, 1938, at the Biloxi Hospital, Drs. De Laureal and Van Studdiford will give a series of five lectures on syphilis. These lectures have been arranged through the Mississippi State Board of Health.

Biloxi, D. L. Hollis,
Dec. 13 1937. Secretary.

ISS9QUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

The annual meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at Vicksburg, Tuesday, December 14, with 76 members and guests present. The program included:

2 to 7 p. m.—Elks Club: Open house and planned trips to hospitals and points of interest.

7 p. m.—Hotel Vicksburg, Coral Room: Annual Banquet, Dr. G. C. Jarratt, Vicksburg, presiding.

Invocation was given by Dr. Camille Estornelle, Vicksburg.

A feature of the meeting was the presence of a number of past presidents of the Mississippi State Medical Association. They were presented by Dr. S. W. Johnston, Vicksburg, and Dr. J. W. Barksdale, Jackson, responded.

The following officers of the Mississippi State Medical Association were presented by the president: Dr. W. H. Little, Wesson, president; Dr. Joe E. Green, president-elect; Dr. L. W. Long, Jackson, vice-president; Dr. W. H. Watson, Brandon, councilor.

Dr. F. M. Smith, Vicksburg, paid a tribute to the Women of the auxiliary and introduced those present.

Addresses:

Our Experiences During a Recent Epidemic of Cerebro-Spinal Meningitis.—Dr. Groesbeck Walsh, Fairfield, Alabama. Introduced by Dr. W. Pierre Robert, Vicksburg.

Cancer of the Rectum.—Dr. W. D. Haggard, Nashville, Tennessee. Introduced by Dr. A. Street, Vicksburg.

At the business meeting, Dr. R. H. DeJarnette, Rolling Fork, was elected to membership.

A message was received from the Junius Ward Johnson Memorial, Y.M.C.A. stating that the National Board of the Y.M.C.A. had officially indorsed Dr. Parran's campaign against syphilis and asking that the Society cooperate in preparing and presenting a radio program on this subject. The society voted to cooperate. Resolutions were adotped urging the entire Mississippi delegation in Congress and the state officials and legislature to exert every effort to obtain the necessary federal assistance to acquire the vehicular portion of the Vicksburg bridge across the Mississippi river and to make it toll free.

The nominating committee, consisting of Drs. W. H. Scudder, W. C. Pool, and P. S. Herring, presented nominations for officers for the year of 1938 and elections resulted as follows:

President.—Dr. B. B. Martin, Jr. Vicksburg.

Vice-Presidents.—From Warren County, Dr. W. P. Robert, Vicksburg; from Sharkey County, Dr. E. B. Stribling, Rolling Fork; from Issaquena County, Dr. T. W. Huey, Grace.

Secretary-Treasurer.—Dr. Leon S. Lippincott, Vicksburg.

Member of Committee on Medical Defense.—Dr. F. M. Smith, Vicksburg.

Member of Board of Censors.—Dr. W. H. Scudder, Mayersville.

The next meeting of the Society will be held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, January 11, and. in accordance with the by-laws will be devoted to a discussion of the business affairs of the profession. Dr. James T. Nix, dean of Louisiana State University Medical Center and President of the Orleans Parish Medical Society, New Orleans, will be a speaker.

TRI-COUNTY MEDICAL SOCIETY

The annual meeting of the Tri-County Medical Society was held at Brookhaven, Tuesday, Dec. 14, beginning at 12:15 p. m.

The program as announced by the secretary, Dr. R. B. Zeller, included the following:

Dinner.—12:15 p. m.

Election of officers for 1938.

The Rural Physician's Office Equipment.—Dr. D. T. Langston, New Hebron, president.

Remarks.—Dr. W. L. Little, Wesson, president, Mississippi State Medical Association.

Remarks.—Dr. Joseph E. Green, Laurel, president-elect, Mississippi State Medical Association.

Recent Advances in Pharmacology.—Dr. Clyde Brooks, New Orleans, La.

Sudden Deaths.—Dr. Isidore Cohn, New Orleans, La.

It is planned to have meetaings in 1938 as follows: Wesson, March 8; Tylertown. June 14; Monticello, September 13; Brookhaven, December 13.

A program for 1938 was discussed

Members were invited to bring their wives to this meeting.

ATTALA COUNTY

Could not the doctors of Mississippi join wholeheartedly in the present venereal disease program and in the next session of the state legislature start a movement for compulsory examinations and Wassermans before marriage licenses are issued? I believe the doctors owe such a service to the people of Mississippi as an educational program. Other states have similar laws and so far as I know, these laws have proven satisfactory.

Dr. W. R. Pope, one of the most beloved practitioners in the county has suffered a severe set-back due to a laryngeal disorder for which he underwent an operation last fall.

Kosciusko, Miss. J. W. Pender,
Dec. 8, 1937. County Editor.

DESOTO COUNTY

Medical Assembly. The 53rd annual meeting of the Mid-South Postgraduate Medical Assembly, to be held at the Peabody from Feb. 15-18, were completed yesterday at a conference of the Memphis Program Committee in charge of the plans.

More than 1500 doctors from all over the Mid- South are expected to attend the meeting, which is expected to be the largest in the history of the Mid-South Postgraduate Medical Assembly. Tme 53rd annual meeting was scheduled for last year and all arrangements were completed, but was postponed due to the fact that many of the doctors were called on to do emergency work during the flood.

Mail order dentistry is a type of service of which we were totally unconscious until we were told of a man who recently "ordered off" for a set of teeth. He took his own "impression" and ordered his plate according to that measure. At least this may be an explanation of the lack of anchorage and the scenic incongruity which we have sometimes observed. The only ray of hope in such a transaction would be found in a money-back guarantee. Surely the lure of the distant market has not limit.—*W. L. Duren, D.D.*

Biblical Wisdom

In the Book of Nahum, Chapter II, I came upon this verse:

"The chariots shall rage in the streets, they shall jostle one against another in the broad ways; they shall seem like torches, they shall run like the lightenings."

Those Old Testament prophets certainly peered a long way into the future. Because I traveled by night through a main thoroughfare leading from Los Angeles to the sea and vice versa, and I knew what Nahum was describing.

But not even an inspired seer of the Bible could imagine a record of traffic mortality so ghastly as the one we've compiled in this year of grace 1937 A.D. (automobile destruction)—or a people so speed mad.—*Irvin S. Cobb*

On Dec. 3, James Lancelot Minor succumbed to a short illness and a long life in the achievement of professional ideals and of affectionate regard by a large circle of professional and non-professional friends was closed.

"Dr. Minor was long connected with the medical colleges and hospitals of Memphis; cultural objectives pointing towards a broader life as well as civic activities of various sorts enlisted his interest. And so, at the end of 83 long years, Dr. Minor could lay down the cares and responsibilities of life with the consciousness that he had accomplished and set an example which all of us may well emulate."

Our doctors are interested in various kinds of sports—at this time, of course, football. Dr. and Mrs. Rhodes of Horn Lake attended the game at the University and Dr. A. V. Richmond of Lake Cormorant the game at Nashville.

Rt. 4, Memphis, Tenn., L. L. Minor,
Dec. 13, 1937. County Editor.

HUMPHREYS COUNTY

Mrs. Robert Jackson is visiting her parents in Daytona Beach, Fla.

Dr. and Mrs. G. S. Bryan have been called to Dayton, Texas, on account of the serious illness of their daughter, Mrs. Milton Branton.

Mrs. J. C. Higdon spent Thanksgiving in Nashville with her sister.

Those attending the Southern Medical meeting from Humphreys County were Dr. and Mrs. T. J. Barkley, Isola; Dr. and Mrs. J. W. Barkley, Dr. G. M. Barnes, and Dr. J. W. Jackson, Belzoni.

Spencer Barnes is spending this week-end with his parents, Dr. and Mrs. G. M. Barnes.

Dr. and Mrs. Frank Holliman, formerly of Morgan City, have moved to Belzoni.

Recent visitos to Winona were Dr. and Mrs. W. S. Taylor, Isola.

Belzoni. J. W. Jackson,
Dec. 4, 1937. County Editor.

LEFLORE COUNTY

Dr. T. B. Holloman, formerly of Itta Bena, now located at Satartia, was a visitor to Greenwood, Monday, Nov., 1.

Dr. Geo. Baskervill, Greenwood, visited relatives in Alexandria, La., Nov. 3.

Members of the staff of the Greenwood Leflore Hospital were served a nice turkey dinner by Miss Trigg and nurses at the regular meeting, Nov. 4.

Among the speakers at the meeting of the Mississippi Federation of Womens Clubs, at Greenwood, Nov. 4, besides Gov. White, were the following doctors: Felix Underwood, W. W. Cox and R. N. Whitfield, Jackson, and Emma Gay, Biloxi.

Drs. J. P. Bates, S. L. Brister, and F. M. Sandifer have been sick during the month, but now are well again and back at work. Dr. Sandifer recuperated on the Coast.

Drs. T. M. Dye and T. G. Hughes, Clarksdale, attended the football game here between the high schols of Clarksdale and Greenwood, Friday, Nov. 12.

Dr. Robin Harris, Jackson, passed through Greenwood from Reelfoot Lake, Nov. 13.

Dr. and Mrs. W. B. Dickins, and son and daughter, Stokes and Marion, visited Dr. and Mrs. R. D. Dickins, Monticello, Ark., Sunday, Nov. 4.

Dr. J. C. Ward, Charleston, Tallahatchie County health officer, visited in Greenwood, Wednesday, Nov. 17.

Dr. and Mrs. J. C. Adams returned from New Orleans, Nov. 22, where they had been to attend the funeral of Mrs. Adams' father.

Dr. H. G. Rudner, Memphis, visited Greenwood, Sunday, Nov. 28.

Dr. and Mrs. D. O. Pierce, Jonestown, visited in the home of the doctor's brother, Judge M. F. Pierce, Sunday, Nov. 28.

Among those going to New Orleans to the meeting of the Southern Medical Association were the following: Dr. and Mrs. J. F. Lucas, Dr. and Mrs. R. E. Wilson, Dr. and Mrs. R. B. Yates, Dr. Geo. Baskervill, Dr. J. A. Crawford and Dr. and Mrs. W. M. Gallaher of Shawnee, Oklahoma, who stopped by Greenwood for a day visiting in the home of Mrs. J. B. Wilson, Mrs. Gallaher's sister.

Dr. and Mrs. W. E. Denman visited relatives in Jackson, Sunday, Nov. 28.

Greenwood, W. B. Dickins,
Dec. 1, 1937. County Editor.

MONROE COUNTY

DR. N. W. NANNEY

On Wednesday the 8th instant, in company with Dr. B. C. Tubb of Smithville, this writer drove through blinding snow, to Fulton, a distance of thirty miles to attend the funeral of Dr. N. W. Nanney of that town. As a rule I avoid funerals. Personally I am fond of sunshine, joy and gladness. There is so little that one can do or say that will tend to assuage grief and lighten sorrow that follow death that I do not attempt to comfort those who have been bereaved. Time alone can heal the wounds of such poignant sorrow. But in this case I felt impelled to express in some feeble way my high regard and fondness for the deceased. Dr. Nanney was a most unusual man. He might not be classed as brilliant, but, far better, he was industrious, honest and conscientious. His whole life and all his talents were wholly dedicated to his very large clientele. His people loved, respected and appreciated him, even more than they knew. This was made manifest by the shocked and stunned expression on every face in the tremendously large gathering at the funeral. Notwithstanding the inclemency of the day—the snow and bitter coldness, the large church could not furnish standing room for those who were there. This, in spite of the fact that Fulton is a town of only a few hundred inhabitants. This large crowd was made up of every class. The richest and the poorest of the community were there; the educated and the illiterate, the old and young, all intent on paying respect and homage to the friend and benefactor of the entire populace

While there I heard it said and repeated that Dr. Nanney had never been known to refuse service to any man, woman or child because the prospect of pay was doubtful. This, perhaps, is true. But he *always* received pay for his service, but this pay, many times, would not buy the things that he needed for his own sustenance. But this pay made him rich beyond compute. This pay consisted in the knowledge and satisfaction that he had been and was "a friend of man." Doctor Nanney was young (far too young to die)—just fifty-seven. Just in the full vigor of life—but he is gone from the walks of man. But he will long be loved and remembered by those who knew him best. Fulton, Ittawamba County and Northeast Mississippi Thirteen Counties Medical Society have lost a good doctor, a sympathetic friend, a great and good man.

The lives of this writer and Dr. Nanney were not intimately blended. Only as members of our medical societies were we associated. But in this way do we become best acquainted and learn to love each other.

In conclusion I will simply say, "resqiescat in pacem."

Amory, G. S. Bryan,
Dec. 10, 1937.

PIKE COUNTY MEDICAL SOCIETY

The Pike County Medical Society held its regular monthly meeting in the sub-story of the Centenary Methodist Church in McComb at 6:30 p. m. Thursday, Dec. 3, 1937. The meeting was entirely a business one and was called for the purpose of electing officers for the ensuing year. The secretary read a letter from Dr. Dye, state secretary.

Dr. E. M. Givens, McComb, was nominated for president by Dr. L. W. Brock. The society unamiously elected him. Dr. Thomas Purser, Jr., McComb, was nominated and unamiously elected for vice-president. Dr. T. Paul Haney, Jr., McComb, was re-elected secretary. Each newly elected officer made a short talk of acceptance and appreciation for honors bestowed upon him.

With no further business the meeting was adjourned.

The following men were present: Doctors L. W. Brock, R. H. Brumfield, E. M. Givens, T. Paul Haney, Jr., B. J. Hewitt, T. E. Hewitt, W. C. Hart, G. W. Robertson, J. M. Smith, Thomas Purser, Jr., and A. V. Beacham.

McComb, T. Paul Haney, Jr.
Secretary.

PONTOTOC COUNTY

Dr. Eliam B. Burns, Ecru, this county, is taking a four months' course of postgraduate instruction at Harvard University.

Dr. Roy Carruth has been indisposed for several weeks and is now undergoing observation and treatment in Memphis.

Dr. W. H. Reid, Toccopola, this county, is attending the Southern Medical Association meeting in New Orleans.

The other doctors of the county are attending to their routine professional duties, and expectantly awaiting the appearance of Santa Claus.

Pontotoc, J. A. Rayburn,
Dec. 3, 1937. County Editor.

TIPPAH COUNTY

Dr. J. H. Pearce, Falkner, attended the railroad surgeons' meeting in Mobile last month, reporting a nice trip.

Mrs. R. M. Adams visited her son Herman in Utica while Dr. Adams was attending the Southern meeting in New Orleans.

Dr. R. M. Adams was chosen president of the North Mississippi Seven Counties Society at recent meeting at Holly Springs. He has the unusual distinction of being president of the Mid-South Assembly due to meet in Memphis in February. He wears his honors becomingly.

Mrs. C. L. Randolph, Ripley, is the proud grandmother of an only grandson, and has been made to look younger in enjoyment of him.

Dr. and Mrs. Jas. I. Mayfield, Blue Mountain, had their son and daughter with them Thanksgiving to their great delight. Miss Helen is teaching in the Delta, while Henning is a medical student in Memphis where he is said to be making a fine record.

Tippah County has another promising medical student in person of Lorenzo Adams of Ripley.

The daughters of Dr. and Mrs. C. M. Murry spent Thanksgiving in Ripley, Mary Miller coming from Wesson, where she teaches in Copiah-Lincoln Junior College and Eudora from Port Arthur, Texas, teaching in public school there.

Mrs. J. E. Tate is to have with her her mother who lives in far away Maine, and who is getting a touch of "Sunny South Winter."

From what the writer can gather, the charity fund as used has proven a boon to many poor unfortunates in this part of the state, who would necessarily have had to suffer from lack of proper treatment or hospitals would have had to carry an unbearable load.

This is the month in which a disgraceful advertisement will appear in Mississippi county papers, being a call for lowest bids for poor farm and jail practice. No one ever heard of legal bids for services and 'tis high time in our estimation for medical societies to demand repeal of that section of the code that makes such a call by boards of supervisors.

Dr. C. M. Murry expects to be in Jackson Dec. 9 and 10 in attendance on sessions of the Public Health Association meeting, where a fine program is to be given. Several outstanding parties out of state are to address this body as to some needed efforts to keep Mississippi standards up to high level of recent years.

Success to editor, and wish for continuance of his good work.

Ripley, C. M. Murry,
Dec. 9, 1937 County Editor

TALLAHATCHIE COUNTY

The Tallahatchie County Medical Society at its regular monthly meeting, met at Webb, Dec. 9th. The weather was cold and Mr. Stork mighty busy, but the following doctors were present: D. G. Bardwell, J. D. Biles, G. Lacy Biles, J. G. Backstrom, F. C. Freeland, Paul R. Googe, H. A. Harris, G. D. Hightower, J. W. Moody, J. E. Powell, N. L. Townsend.

Oyster dinner served at Webb Hotel. The regular business session was held in Dr. Harris' office. The new officers for 1938 were elected as follows: President, G. Lacy Biles; vice president, G. D. Hightower; secretary, J. E. Powell.

Next meeting to be held in Sumner Jan. 6.

J. E. Powell, Secretary

WASHINGTON COUNTY

Dr. T. B. Lewis and Dr. C. P. Thompson, Greenville, have moved their offices to the Weinberg Building. Together with Dr. L. C. Davis, they occupy the suite of offices vacated by Drs. Hirsch, Beck and Eubanks as they removed to their new clinic building.

Washington County was honored by the annual meeting of the Mississippi State Nurses Association, held at the Greenville Hotel, Nov. 8 and 9. The attendance was exceptionally large and the program one of outstanding interest. Mrs. Alice Finley of Tupelo, was elected president of the Association for the ensuing year, succeeding Miss Mary Dorsey of Greenville. Out-of-state guests were Miss Zella Bryant of the National Red Cross Headquarters office at Washington, D. C.; and Mrs. Alma H. Scott from the New York office of the National Nurses Association.

The physicians of Greenville, together with their wives, were the invited guests of the Association at its annual banquet. Dr. W. C. Galceran, D.D., of Hollandale, was the honor speaker of the occasion. His address was one of inspiration and encouragement to develop the warm springs of Percy Park near Hollandale, into a health resort, particularly for victims of infantile paralysis, similar to the well known resort of Warm Springs, Georgia.

The advisory committee of Washington County physicians to the Venereal Clinic for indigents met at the City Hall, November 9, where plans for the further development of such a clinic were discussed. They were fortunate in having the presence and counsel of Dr. Felix Underwood of the State Board of Health, and Dr. D. V. Galloway, who has conducted such a clinic at Meridian for a number of years.

Washington County physicians attending the meeting of the Southern Medical Association in New Orleans were: Dr. F. M. Acree, Dr. D. C. Montgomery, and Dr. A. V. Murry. Dr. E. T. White had an exhibit at the meeting this year, displaying an improved method for preserving and mounting museum specimens of gross pathologic conditions. Dr. J. D. Hirsch attended the meeting and enjoyed a visit with his son, Jerome, who is a student in Tulane School of Medicine. Dr. H. A. Gamble also attended the Southern meeting and will later attend the meeting of the Southern Surgical Association at Birmingham, December 7 to 9, where he will present a paper on a new phase in the operation for repair of congenital tracheo-esophageal fistula.

Greenville, J. A. Beals,
Dec. 2, 1937 County Editor

WINSTON COUNTY

Dr. W. W. Parks and his wife spent the week end with their son and daughter at New Albany recently.

Dr. W. W. Hickman, one of our best farmers and county health officer, was in the city this week.

Dr. Everett Lovern was on the streets this week.

The writer has recently moved into his new clinic.

I understand that most of the doctors are expecting to attend the medical meeting of the East Mississippi Society next week.

An unusual accident occurred on Road 15, north of Louisville the 5th inst, to Messrs. John Oldham and Henry Cannon, the car turning over several times and producing fatal injuries to them. The former was brought to Montgomery Clinic, examination revealing a dislocation of spine at base of brain. He died in a short time. The latter was taken to Dr. E. L. Richardson's Clinic and after first aid was taken home. He died two days later.

Dr. W. B. Hickman assisted in treating Mr. Oldham, and Dr. T. C. Suttle assisted Dr. Richardson with Mr. Cannon.

Louisville, M. L. Montgomery,
Dec. 7, 1937 County Editor

MISSISSIPPI HOSPITALS

PONTOTOC CLINIC

One case report for Pontotoc Clinic might be of some interest to the profession, serving to refresh the memory of possible complications in any given case of surgical operation.

C. W., robust, 300 pound, 30 year old white man, operated upon for right inguinal hernia (massive) under local one per cent novocain. Recovery progressed in a satisfactory manner until about two weeks after operation, when he was awakened in the middle of the night with an excruciating pain in the chest, and gasping for breath, showing deep cyanosis. One-fourth grain of morphine was given hypodermically, and for want of something better, 1 c.c. of coramine was given. It appeared that death was imminent. But after about ten or fifteen minutes the breathing and cyanosis began to show some evidence of improvement. Coramine and morphine, were ordered as needed. The next day a deep hard cough developed. Intensive infra-red therapy instituted, he began to expectorate large quantities of thick tenacious blood flakes. He has shown some continued improvement, breathing easy except for occasional sharp pains in chest. No credit for treatment. The improvement I am sure is due to the forces of nature acting in a kindly manner.

Diagnosis: Pulmonary embolism.

Pontotoc J. A. Rayburn,
Dec. 3, 1937

VICKSBURB SANITARIUM

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held Friday, Dec. 10, and after a supper served at 6:30 p. m., was called to order by the president, Dr. George M. Street, with ten members and three guests present.

Special Case Reports:

1. "Abscess of Pancreas Associated With Cholelithiasis"—Dr. J. A. K. Birchett, Jr., (Read by Dr. L. J. Clark).

Discussed by Drs. L. J. Clark, L. S. Lippincott and George M. Street.

2. "Nutritional Edema, Case Report."—Dr. G. C. Jarratt.

Discussed by Drs. R. A. Street, George M. Street, L. J. Clark.

3. "Gunshot Woung of Abdomen and Chest."—Dr. R. A. Street, Jr.

Demonstration of Selected Radiographic Studies: Kohler's Disease, Bilateral; Congenital Syphilis of the Long Bones; Exostosis of Skull; Pulmonary Tuberculosis (5 cases); Pulmonary Abscess; Malignant Tumor of Thorax (2 cases); Cholelithiasis; Ureteral Calculus; Diverticulosis of Colon.

Three-minute reports of the literature of the month:

1. Dr. L. S. Lippincott—Pernicious Malaria.
2. Dr. R. A. Street—Prevention of Eclampsia
3. Dr. W. E. Johnston—Attachment of Artificial Limbs.

There being no further business the staff adjourned at 8:45 p. m.

The next meeting of the staff will be on Monday, January 10, 1938.

ABSTRACT—ABSCESS OF THE PANCREAS ASSOCIATED WITH CHOLELITHIASIS

J. A. K. Birchett, Jr., M.D.

Patient—White, female, age 28, housewife.

Present Complaint—Chills, fever, acute abdominal pain.

History of Present Complaint—Began three months ago, two weeks after normal delivery of a full-term female child. The puerperium was normal, and two days after getting up from childbed, having been in bed ten days following delivery of the baby, she had a violent, acute, abdominal pain, mostly felt in the upper abdomen and referred to the back. There was nausea and vomiting, and this was accompanied by a severe rigor and fever of 104°F. Her home physician saw this patient, said that she was passing a gall stone, and administered a hypodermic, which it was necessary to repeat for relief of the pain. Since that time, she has had repeated attacks of abdominal pain, associated with fever and chills. She has lost considerable weight and has become jaundiced. She has been unable to take or retain any nourishment whatsoever for the past ten days. The stools have been scanty and are clay-colored. The urinary output has been lessened and she has been prone to profuse sweating.

Past History—Usual diseases of childhood; diphtheria when eight years of age, scarlet fever when ten. Tonsillectomy at twelve. Has had many attacks of malaria, and for the past three years has had recurrent attacks of abdominal pain similar to this previous attack, but usually symptoms would subside in from 24 to 48 hours; has never had any jaundice. She was told by her family doctor that the attacks were due to the passage of gall stones. Her digestive history has been faulty. She has observed that when she eats fried or fatty foods, or indulges excessively in sweets, that she suffers with indigestion and complains of belching and gaseous distension, which is relieved at times by taking of soda or magnesia. Menstrual history began at thirteen years of age, regular, five to seven days duration, no pain. Has had no miscarriages; three pregnancies with normal delivery; children living and well.

Family History—No tuberculosis. Grandmother died with cancer of the stomach and mother has recently been under treatment for cancer of the uterus. Father is living and well; mother is in fairly good health, and she has two sisters living and well.

Physical Examination—Patient was brought into the sanitarium as a stretcher case; temp. 103°F., pulse 110, weak, and of small volume. Blood pressure 120/90; resp. 24. The general appearance was that of a young, fairly well developed and nourished white woman, apparently acutely ill. The tongue and mouth were dry, face flushed, skin dry; sclerae showed jaundice. Examination of heart and lungs not remarkable. Abdomen tender on palpation; some distension. Rigidity of the upper right rectus and exquisite pain was definite over the epigastric region on the slightest pressure. Lower abdomen not remarkable. No tenderness over either costovertebral angles or over the region of the uterus. No herniae. No glandular enlargement. Pelvic examination showed a normal involuting uterus with normal adnexa; cervix not remarkable; second degree laceration of the pelvic outlet. Moderate hemorrhoids which were painful on examination. Reflexes normal. Slight icteric tint to the skin.

Clinical Laboratory—Urine; many pus cells, many bacilli, no albumin, no sugar, marked trace of bile. Icterus index,, 30.

From the history and physical findings, a tentative diagnosis was made of gall stones, with possible empyema of gallbladder, and stone in the common duct. Patient, therefore, was hospitalized and was immediately put on supportive treatment, given glucose intravenously, 1000 c.c. of 10 per cent twice daily, and calcium gluconate, 15 grains, daily. She complained so much of nausea that through duodenal tube stomach was washed every two hours. There was some relief of the nausea following administration of the glucose. She was unable to retain any nourishment other than orange juice and coca cola, which were given every few hours. The day after admission a flat x-ray plate of the gallbladder region did not demonstrate any calculi. October 12, which was seven days after admission, her icterus index had dropped to 6.6, direct van den Bergh reaction was positive, and serum bilirubin was 1 plus. The direct van den Bergh gave further suggestion that we were dealing with an obstructive type of jaundice.

At this time, the patient's condition was so much improved that gallbladder studies with the administration of dye were made, and a large pale filled gallbladder was demonstrated with many millet seed shadows suggestive of calculi appearing. Urine had cleared up considerably; there was no acetone, indican, or diacetic acid, and only a rare pus cell; 0.33 per cent sugar was found in this specimen. October 15, sedimentation index was 24 millimeters; sedimentation time one hour and fifteen minutes. This reading suggested a moderate activily of a pathological lesion.

October 29, the patient's general condition had improved to such degree, except for a continuation of the nausea and pain, that it was thought advisable to do an exploratory procedure for cause of the inflammatory condition. Under general anaesthesia, an upper right rectus incision was made. There were few adhesions in the peritoneum, the gallbladder was adherent to the duodenum and the colon by thin veil-like adhesions, which were easily separated, and the gallbladder was found to be contracted, and markedly thickened. No stones could be palpated because of the abnormal thickness of the gallbladder wall. The pancreatic region was palpated. The stomach had been pushed forward, and lying beneath it was a large, hard, nodular mass, which was thought to be the pancreas, and, on first examination, gave the impression of a malignant condition. However, adhesions were separated along the gastrohepatic ligament and the duodenum and colon were gradually pushed away so that the upper border of the mass could be more closely observed in the region of the common duct. This structure was completely obliterated by the over-growth of the mass. There was one area which had the appearance of abscess formation, and it was thought advisable to introduce an aspirating needle into this boil-like nodule.

A 16-gauge needle was inserted and thick purulent material was withdrawn. The course of the needle was followed with blunt forceps, and an abscess about the size of a walnut was aspirated with suction. A tube drain was placed in this cavity and the posterior peritoneum was closed about the tube to prevent possible leakage, and the tube was fixed in the opening. The gallbladder was then opened and aspirated of mucopurulent material; a scoop was then passed into the cavity and many well formed gall stones, from the size of a coffee bean to a filbert, were removed. A tube was then placed in the fundus of the gallbladder for drainage. Several rubber-dam drains were inserted in the region of the opened abscess and the abdomen was closed.

The convalescence was rather stormy for several days. The patient developed evidence of acidosis, and we were fearful that she was developing an acute diabetic condition, because of the failure of the function of the pancreas. However, large amounts of glucose were administered, which were balanced by insulin, and her condtion improved. October 31, the blood sugar was only 100 mg. per 100 c.c. and the CO_2 combining power 52.76. During the postoperative period, she was administered insulin to assist in the carbohydrate metabolism, because of the possible failure of the pancreatic secretion. October 31, there was no acetone or diacetic acid, and no sugar. November 2, there was some acetone present, and 2.5 per cent sugar. After that time, for several days, sugar appeared in the urine at intervals, but by

November 10, there was no sugar present and no acetone. She was continued on insulin, 6.7 units, 30 minutes before each feeding, the insulin not only taking care of excess carbohydrates and resting the pancreas, with a stimulating effect on the pancreas, but also creating a desire for food. The biliary drainage had changed from a black pathological biliary secretion following the operation to a normal pale yellow bile drainage. On the 17th postoperative day, the tube in the pancreatic abscess was removed, there having been no drainage from this tube at any time following the surgical procedure. The culture of the abscess at time of operation had shown colon bacilli. On the 18th post-operative day, the deep sutures were removed and the patient was permitted to be up in a chair, and on the 19th postoperative day, the gallbladder tube was removed, there being very little or no drainage and the stools having taken on a normal color. The patient was permitted then to walk about the room, and her general condition was excellent. She was able to take food without difficulty, had developed an appetite, and was gaining strength rapidly. She was discharged free of all symptoms November 24, which was on her 27th postoperative day, her general condition being excellent. The patient has reported to the out-patient department, and she has continued to improve. There have been no more attacks of colic or food distress. She is gaining weight, the stools are of normal color, the icterus index is 8, and there is no sugar in the urine.

ABSTRACT NUTRITIONAL EDEMA

G. C. Jarratt, M.D.

Patient—W. McK., age 2½ years, seen in Out-Patient Department Nov. 18, 1937.

Chief Complaint—Loose stools, fever, and "swelling of body."

Present Illness—Father states that child began three weeks ago with a diarrhea, having 15 to 20 stools a day, which contained both mucus and blood at this time, nausea and vomiting, and fever for two days, but since that time, no fever until three days ago. Since that time, has had four to six stools daily with mucus, but no blood. Past four or five days, cold, with slight cough. Noted swelling of feet, legs and hands about four days ago and enlargement of the abdomen three days ago. Pain in lower extremities upon movement.

Father states that since the onset of the diarrhea that the child has taken very little, other than crackers, toast, and cereals, with practically no milk or other nourishment. Prior to the onset of the diarrhea, eight other members of the family had a similar condition.

Past History—Child had been in excellent condition up to the present illness, except for "flu" in May, 1937, which lasted only three or four days, and before the onset of the above illness, the child was up running around playing. Father states the child has never talked, only mumbles and points to things he desires and for approval.

Family History—Father living and well; mother has been "ailing" for six months with a slight cough and loss of weight. Seven sisters and brothers living and well. No known contact to tuberculosis, unless that of mother.

Physical Examination—Fairly well-developed, but poorly nourished child with marked generalized edema of the whole body. Ears, eyes, nose, and throat normal. Chest wall markedly edematous and pits on pressure. Lungs normal, except for a few rales in the left upper lobe, but no dullness, and the rest of the lung apparently normal. No apparent enlargement of heart and no murmurs. Spleen and liver not palpated; abdominal wall markedly edematous, abdomen tympanitic; no fluid wave elicited; no masses felt. Marked edema of penis and scrotum. Marked edema of lower extremities and, to a less degree, of the upper; pain on passive motion of both knees, but no apparent swelling or redness. Generalized pitting edema of skin and, especially, dependent edema of the back.

Roentgen ray studies of chest revealed an area of opacity in the left upper lobe; long bones normal.

Clinical Laboratory—Urine: no red blood cells, no pus, no albumin, no sugar, but slight trace of acetone.

Blood: hb., 72%; erythrocytes, 3,990,000; leukocytes, 19,100; polymorphs, 59%; lymphocytes, 41%; no malaria found; Wassermann, Kahn, and Kline and Young tests negative; agglutination test for undulant fever negative. Urea nitrogen, 10.27 mg. per 100 cc.; creatinine, 1.9 mg; chlorides, 350 mg.; cholesterol, 333 mg.; plasma fibrin, 0.251 grams; plasma globulin, 1.659 grams; plasma albumin, 4.750 grams, a total of 6.660 grams.

Feces: some fresh blood, many ascaris lumbricoides ova; cultures for dysentery, typhoid, para-typhoid "A" and "B", negative.

Mantoux-tuberculin (1-1000) test, 4-plus at end of 48 hours.

Repeated urine specimens were normal.

Course and Treatment—Put to bed with regular diet; 3 grains of aspirin for fever; ½ grain of codeine for cough, and mustard plasters to the left upper chest every six hours.

After the child was on a regular diet for three days, the generalized edema miraculously disappeared, leaving a very thin emaciated child, with evidence of a deformity at the level of the twelfth thoracic vertebra. Roentgen ray studies of the spine, at this time, revealed an involvement of the 11th and 12th thoracic vertebrae, with the intervertebral disks gone, and also involvement of the 4th and 5th lumbar vertebrae.

Blood after disappearance of the edema, showed chlorides, 370 mg. per 100 c.c., cholesterol, 137 mg.; plasma fibrin; 0.168 grams, plasma globulin, 1.850 grams, plasma albumin, 4.076 grams, a total of 6.094 grams.

Roentgen ray December 4, 1937, revealed a miliary tuberculosis of the entire lung. Two specimens of sputum were negative for tubercle bacilli.

This infant was allowed to return home to be under the care of the local family physician, and no treatment for the spine was deemed advisable with the lung picture as it was. A bad prognosis was given.

Final Diagnosis—(1.) Tuberculosis of 11th and 12th thoracic and 4th and 5th lumbar vertebrae; (2.) miliary tuberculosis; (3.) nutritional edema.

HONOR ROLL

The following have contributed to the present number of our journal:

County Editors: Attala, J. W. Pender; DeSoto, L. L. Minor; Humphreys, J. W. Jackson; Leflore, W. B. Dickins; Monroe, G. S. Bryan; Pontotoc, J. A. Rayburn; Tippah, C. M. Murry; Washington, J. A. Beals; Winston, M. L. Montgomery.—9.

Societies: Amite and Wilkinson Counties, D. H. Thornhill; Central, Gayden Ward; Coast Counties, D. L. Hollis; Issaquena-Sharkey-Warren Counties; Tri-County, R .B. Zeller.—5.

Medical Literature: L. J. Clark, A. Street, Harvey F. Gårrison, J. A. Beals, Charles D. Mitchell; Alston Callahan; Thomas H. Blake; F. J .Underwood. 8.

Hospitals: Pontotoc Clinic, J. A. Rayburn; Vicksburg Sanitarium.—2.

Others: Felix J .Underwood.

Grand Total—25.

Your editors thank you.

HAPPY NEW YEAR

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASSOCIATION

TEA GIVEN BY BILOXI UNIT

A beautiful tea was given in the home of Mrs. P. E. Werlein from four to five-thirty in the afternoon of November 3rd by the Biloxi unit of the Harrison-Hancock-Stone Counties Medical Auxiliary, complimentary to the ladies accompaning their doctor husbands attending the Gulf Coast Clinical Society meeting.

This gracious, spacious home was lovely with a great many fall flowers about the rooms and the tea was served in the dining room. The lace covered, candle lighted table was delightfully attractive. Mrs. W. T. Bolton in black frock, poured tea and Mrs. R. W. Burnett, in colorful print, poured coffee. Other members of the Biloxi unit served and visited with the guests.

Among the visitors was Miss Katherine White-Spunner, who was warmly welcomed by these, her old friends, as she was formerly superintendent of nurses of the Biloxi hospital.

Mrs. B. Z. Welch is president of the Biloxi unit of the Medical Auxiliary and received in white lace afternoon gown, with corsage of poudre blue flowers. Mrs. Werlein wore a becoming frock of wine-red velvet and all the members of the Biloxi unit wore attractive party frocks. Receiving with those above named were Mesdames J. J. Carter, D. L. Hollis, G. T. Carroll, Eldon Bolton, B. B. O'Mara, E. A. Trudeon and W. W. Eley. Assisting were Miss Katherine Weeks, Mrs. Magruder Eckles, Mrs. Robert Smith, and Mrs. Harry Cavalier.

MISSISSIPPI

The fourteenth annual convention of the Woman's Auxiliary to the Mississippi State Medical Association was held in Meridian, May 11, 12, 1937, with a registration of 102.

The Public Relations chairman reported that the state-wide Health Education contest in public schools was given special attention. The response was splendid. Essays from 52 counties were received. The reward of $5.00 for the best essay was won by a student attending the Mozelle Consolidated High School, Jones county. 950 Preventorium pamphlets were mailed to schools and 65 to County Superintendents of Education. The Endowment

Fund for the State Preventorium was increased by donations from the auxiliaries.

Annual celebration of Doctor's Day was reported by 4 auxiliaries. This is a social feature tendered by members of the auxiliaries to the medical profession.

The Press and Publicity chairman reported a special invitation given auxiliary members to subscribe to the National News Letter issued four times a year and carrying news of auxiliaries over the nation. Four subscriptions were placed by the Chairman of Press and Publicity. A copy of the auxiliary section was sent regularly to the editor of this News Letter. The President of the National Auxiliary, the National Press and Publicity chairman, the president of the Southern Medical Auxiliary and Press and Publicity chairman, and the retiring presidents of these two auxiliaries have been on our regular mailing list for *The Mississippi Doctor* for the past year.

Featured on the state meeting last May were addresses by Dr. Henry Boswell of Mississippi Tubercular Sanatorium at McGee, and Dr. Emma Gay of Gulfport, chairman of Cancer Control in the state and a member of the auxiliary.

Since the state meeting in May, the Mississippi Auxiliary has published its first year book, a copy of which was sent to each member in the state. Projects and suggested programs were included in this year book. The program chairman secured short, concise and authentic papers on such vital subjects to the state as poliomyelitis, rabies, tuberculosis, state medicine, medical heroes, marijuana, syphilis and cancer. Copies of these papers were sent to each auxiliary in the state for use on programs and for publication in the various local newspapers. The idea of getting authentic facts before the public concerning medical matters has been stressed.

The philanthropic work of each auxiliary is dependent on the needs of its locality. Much splendid work is being done over the state. Layettes are provided for the charity wards of hospitals by local auxiliaries in some instances.

The public health chairman has made a special effort to interest the laity in the programs broadcast by the American Medical Association every Wednesday from one to one-thirty p. m. Central Standard Time, over NBC.

The Press and Publicity chairman has supplied the news of the auxiliaries to *The Mississippi Doctor*. She is preparing a scrap book for exhibit at the next state meeting and is planning to have an informative and inspirational exhibit of suggested programs used by other states, in addition.

Mississippi is proud to report that there is an organization in every district in the state, the last district having been organized recently.

Respectfully submitted,
Mrs. Chas. C. Hightower, Pres.
Hattiesburg, Miss.

NORTHEAST MISSISSIPPI THIRTEEN-COUNTY AUXILIARY

On December 17 the ladies of the Four-County Auxiliary were hostesses to the ladies of the Thirteen-County Auxiliary which met in Tupelo. The lovely Bavarian room of the Jeff Davis Hotel was the scene of a beautifully planned Christmas luncheon, presided over by Mrs. J. A. Rayburn, Jr., of Pontotoc, president of the Four-County Auxiliary.

Dr. Irvin Abell, president of the A. M. A., brought a most welcome address before the luncheon, stressing the part the wives of doctors can play toward the advancement of their husbands by correct enlightenment of the laity, study of pioneers in Southern medicine and commemorating their courage and heroism, and by becoming press agents in an understanding manner.

Following the luncheon a business meeting of the Thirteen-County unit was held and the following officers elected for the coming year:

Mrs. L. L. McDougal, Booneville, president; Mrs. V. B. Philpot, Houston, first vice-president; Mrs. H. J. Kellum, Tupelo, second vice-president; Mrs. R. B. Warriner, Corinth, third vice-president; Mrs. W. H. Anderson, Booneville, secretary-treasurer.

LUCIEN A. LeDOUX, M.D.
Gynecology & Obstetrics
Maison Blanche Building
New Orleans

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical
Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tennessee

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 6-3288
899 Madison Ave. Memphis, Tenn.

JOHN W. RAGSDALE, M.D.
CHESTER D. ALLEN, M.D.
327 Medical Arts Bldg.
Memphis, Tenn.
Urology and Urological Surgery

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as Applied in This Field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Phones: Off: 6-1923 —:— Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Mississippi

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Mississippi

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WILLIAM MILTON ADAMS, M.D.
Practiced Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tennessee

HENRY G. HILL, M.D.
Clinic 847 Madison Avenue
Memphis, Tennessee
Practice Limited to:
Diseases and Injuries, Bones and Joints, Cripples
and Deformities, Braces and
Appliances

FRANK W. SMYTHE, M.D.

Practice Limited to

Surgery and Radium Therapy

Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES

Neuro-Surgery
Physicians and Surgeons Bldg.

Memphis, Tennessee
Phones: Off: 6-3288 Res.: 29645

Compliments of

DR. JOHN P. HENRY

Suite 2005-6-7 Sterick Building

Memphis, Tennessee

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tennessee

GILBERT J. LEVY, M.D.
Practiced Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER

Ophthalmology

1720 Exchange Building
Memphis, Tennessee

HENRY G. RUDNER, M.D.

Clinic—Internal Medicine

1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.

Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

DR. WILLIAM F. HAND

Gynecology and General Surgery

519-21 Standard Life Bldg.

Jackson, Mississippi

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Building
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Mississippi

ROBERT H. BRUMFIELD, M.D., F.A.C.S.

General Surgery and Urology

McComb, Mississippi

DR. J. W. LIPSCOMB, JR.

General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Mississippi

LAWRENCE W. LONG, B.A., M.D., F.A.C.S

410-412 Standard Life Bldg.
Jackson, Mississippi
GENERAL SURGERY
Surgical Diseases of Children

F. M. ACREE, M.D.

Greenville, Miss.

DR. THOMAS H. BLAKE

414 Standard Life Bldg.
Jackson, Miss.

Practice limited exclusively to
Orthopedic Surgery

WILLIAM T. SATTERFIELD, M.D., F.A.C.S.
General Surgery
McLemore Clinic
919 E. McLemore Avenue
Memphis, Tennessee

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians and Surgeons Bldg
(899 Madison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye. Ear, Nose and Throat
and
Bronchoscopy
Princess Theater Building
Columbus, Miss.

W. L. WILLIAMSON, M. D. F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

WILLIAM T. BLACK, M.D., F.A.C.S.
Gynecology
Medical Arts Building
Memphis, Tenn.

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg), F.A.C.S.
Genito-urinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

DOUGLAS D. BAUGH, M.D.
—CLINIC—
Diagnosis—Internal Medicine
First National Bank Building
Columbus, Miss.

DR. H. RANDOLPH UNSWORTH
Practice Limited to Nervous and Mental Diseases
Hours: 1 to 5, by appointment.
10 to 12 on Saturdays
Office: 819 Maison Blanche Building.

WALTER W. ROBINSON, M.D.
Crisler Clinic
1291 Union Avenue
Memphis, Tennessee
Specializing in
PATHOLOGY
ROENTGEN
DIAGNOSIS and THERAPY

DR. J. CASH KING
formerly at John Gaston Hospital
and University of Tennessee
announces the opening of his office
for the practice of RADIOLOGY
902 Madison Avenue
Memphis, Tenn. Telephone 6-7460

SHIELDS ABERNATHY, M.D., F.A.C.S.
HOWARD H. ASHBURY, M. D., Oncologist
CLINIC
For General Surgical and
Neoplastic Diseases
Complete Modern Radiological Equipment
1001 Madison Avenue — Memphis, Tenn.

DRS DUNCAN & FLEMING
I. G. Duncan, B.S., M.D., F.A.C.S.
J. S. Fleming, M.D.
GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION
Suite 1500-06 Commerce Title Bldg
Memphis, Tennessee

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS, Clinical Pathology
MARJORIE WADE, Bacteriology.

THE WOMAN'S CLINIC
W. T. Pride, M.D.
Carey Bringle, M.D.
James M. Brockman, M.D.
Gynecology Obstetrics
1460 Madison Avenue Memphis, Tenn.

R. L. RONALD, M.D.
207-8 Miazza-Woods Bldg.
Meridian, Mississippi
Office Hours: 10 to 12 a. m.—3 to 5 p. m.

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

EDWARD CLAY MITCHELL—QUINN CLINIC
1073 Madison Avenue
Memphis, Tennessee
Practice Limited to
Infant Feeding and Diseases of Children
Hours: 10:00 A. M. to 12:00 M.
2:00 to 5:00 P. M.
By Appointment Phone 7-1307

DUANE CARR, M.D.
Diseases of the Chest
Endoscopy — Thoracic Surgery
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee
Telephones: 8-3662; 2-3226; 2-2138

THE MEDICAL CLINIC
910 North State
Jackson, Mississippi
George W. Owen, M.D., Allergy
T. E. Wilson, M.D., Cardiology & Internal Medicine
John Bullock, M.D., Pediatrics: Allergic Diseases of Children
Gayden Ward, M.D., Internal Medicine, Gastro-enterology
Robin Harris, M.D., Eye, Ear, Nose & Throat: Diagnosis.
Diagnostic Facilities: X-ray, Electrocardiogram, Basal Metabolism Complete Clinical Laboratory, Allergy Laboratory.

Compliments
JAMES W. BODLEY, M.D.
Memphis, Tenn.

ISAAC C. HUGGINS, M.D.
Practice limited to
UROLOGY and PROCTOLOGY
522-23 Standard Life Bldg.
Jackson, Miss.

DR. HENRY B. GOTTEN
INTERNAL MEDICINE
DIABETES
20 S. Dunlap
Memphis, Tennessee

GEORGE GARTLY, M.D., F.A.C.S.
SURGERY and GYNECOLOGY
1014 Farnsworth Building
Memphis, Tennessee

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

THE SOUL OF THE SURGEON
By DR. RUDOLPH MATAS

Composition cover sixty cents, leather eighty-five.

Send your order to
THE MISSISSIPPI DOCTOR
Booneville, Miss.

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 **221 North Farrish St.**
Jackson, Mississippi

DUCKWORTH DRUG COMPANY

Booneville, Mississippi

Distributors of:

Luminal of Sodium

Tablets and Powder

Novocaine Ampoules

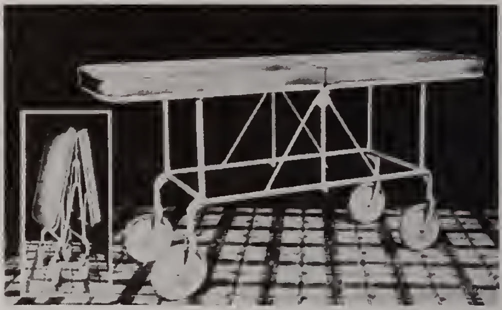
Atabrine

Elixir of Pryamidon

Theominal Tablets

WINTHROP CHEMCAL COMPANY

New York City



Foldway Stretcher

SAVES—60% Storage Space.

FOLDS—with one motion automatically locks into position—cannot collapse when occupied.

STORES—easily in a small closet, narrow aisle or emergency entrance.

EASY—to move when folded, from one floor to another—on elevator or in narrow corridor.

SIZE—length 72"; width 22¾"; height 33¾"; folded height 56", length 13", width 22½".

PRICE $59.50 (pad extra)

for further information, write

McKESSON & ROBBINS, INCORPORATED

Doster-Northington Division

Birmingham, Ala.

THE WALLACE SANITARIUM

MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

---

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most
Modern Business School

A. S. McCLENDON, President

JEFFERSON STANDARD LIFE INSURANCE CO.

The largest regular ordinary Life Insurance Company South of the Mason-Dixon Line.

Policy contracts especially adapted to members of the medical profession.

Trained life underwriters to advise and assist in securing your needs.

J. L. DENSON, District Manager
523-25 Lampton Building
Jackson, Miss.

JEFFERSON STANDARD LIFE INSURANCE CO.
JULIAN PRICE, President
Greensboro, N. C.

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate

THEOCALCIN

BILHUBER-KNOLL CORP.

FOR the failing heart of middle life give Theocalcin beginning with 2 or 3 tablets t. i. d., with meals. After relief is obtained, the comfort of the patient may be continued with smaller doses. Strengthens heart action, diminishes congestion and dyspnoea . . .

THEOCALCIN (theobromine-calcium salicylate) *Council Accepted*

A Well Tolerated Myocardial Stimulant and Diuretic
Available in 7½ grain tablets and as a Powder . . .

KNOLL BILHUBER

BILHUBER-KNOLL CORP. 154 OGDEN AVE., JERSEY CITY, N.J.

". . . and for restful comfort choose the traditionally perfect service of

HOTEL GAYOSO"

C. C. Cartwright, Vice President and General Manager

MEMPHIS, TENN.

FAMOUS FOR YEARS

The Arms of Governor Gayoso

For an appetite treat at a sensible price visit HOTEL GAYOSO *Lobby Coffee Shop.*

LOW PRICED LUXURY

Single Rooms $2.00 up

350 ROOMS

Double Rooms $3.00 up

FREE PARKING IN GARAGE

Compound Solution of Calcium Gluconate
U.S. Standard Products Co.
10-cc. Size Ampul
COMPOUND SOLUTION CALCIUM GLUCONATE
U. S. STANDARD PRODUCTS CO. Woodworth, Wisconsin

10% Calcium Gluconate With 5% Dextrose C.P.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

Calcium Gluconate has been found to be much less irritating than other soluble Calcium Salts used in the treatment of Calcium Deficiency Diseases. The addition of the dextrose aids in the stabilization of the solution, and it is believed, buffers the shock of the intravenous administration. In packages of 10, 25, and 100 ten-cc. ampuls.

Write for catalog or information on any product in which you are interested

UNITED STATES USSP STANDARD PRODUCTS

U.S. STANDARD PRODUCTS CO. Woodworth, Wis.

WELCH'S SANITARIUM, Inc. --- Jackson, Miss.

ALCOHOLISM, DRUG HABITS, MILD NERVOUS DISORDERS treated. Special attention to limited number of problem children. Answering a keenly felt need in Mississippi, this modern sanitarium is under personal direction of Dr. R. R. Welch, former Supt., East Mississippi State Hospital and prior to that, Ass't. Supt., Miss. State Hospital, assisted by complete, highly trained staff. Excellent meals. Quiet, restful; beautiful surroundings; all outside rooms, private baths Inspection by the medical profession invited. Reasonable rates; write or telephone.

WELCH'S SANITARIUM, Inc., JACKSON, MISSISSIPPI

ADMINISTRATION BUILDING

BLUE MOUNTAIN COLLEGE

Blue Mountain, Mississippi

FULL MEMBER OF SOUTHERN ASSOCIATION OF COLLEGES

Write for catalogue and new booklet of campus views.
LAWRENCE T. LOWREY, PRESIDENT

DR. FELIX J. UNDERWOOD
1058 N. CONGRESS

Main Building

FENWICK SANITARIUM

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES
DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association — medical staff specially trained — clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds — homelike environments — located in the healthy and beautiful town of Covington, Louisiana — a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

311/44

Dr. Leon J. Lenville
Maison Blanche Bldg.,
Ne La.

THE N.Y. ACADEMY
OF MEDICINE
AUG -1 1939
LIBRARY.

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, FEBRUARY, 1938 NO. 9.

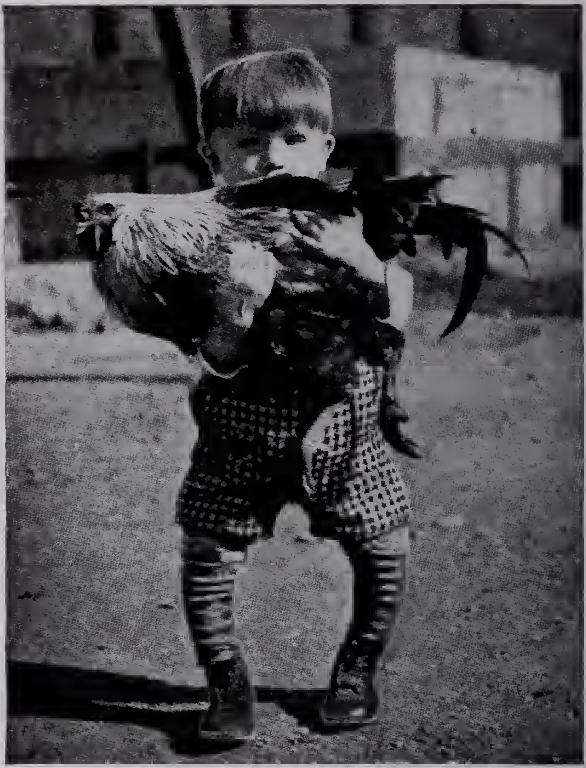
On to the Mid-South where the field of medicine and surgery is covered in four days and nights by the outstanding authorities of North America and where the specialist and the general practitioner discuss their problems across the table.

◆

Carl R. Crutchfield, M.D.
Nashville, Tenn.
President Mid-South Post-Graduate Medical
Assembly which meets at Hotel Peabody
Memphis, Tenn., Feb. 15-18, 1938

EXCH. MLA

It Can Happen Here



Example of severe rickets in a sunny clime. Courtesy of E. H. Christopherson, M.D., San Diego, and of "California and Western Medicine."

LEST WE FORGET—we who are of the vitamin D era—severe rickets is not yet eradicated, and moderate and mild rickets are still prevalent. Here is a white child, supposedly well fed, if judged by weight alone, a farm child apparently living out of doors a good deal. This boy was reared in a state having a latitude between 37° and 42°, where the average amount of fall and winter sunshine is *equal to that in the major portion of the United States.* And yet such stigmata of rickets as *genu varum* and the quadratic head are plain evidence that rickets does occur under these conditions.

How much more likely, then, that rickets will develop among city-bred children who live under a smokepall for a large part of each year. True, vitamin D is more or less routinely prescribed nowadays for infants. But is the antiricketic routinely administered in the home? Does the child refuse it? Is it given in some unstandardized form, purchased from a false sense of economy because the physician did not specify the kind?

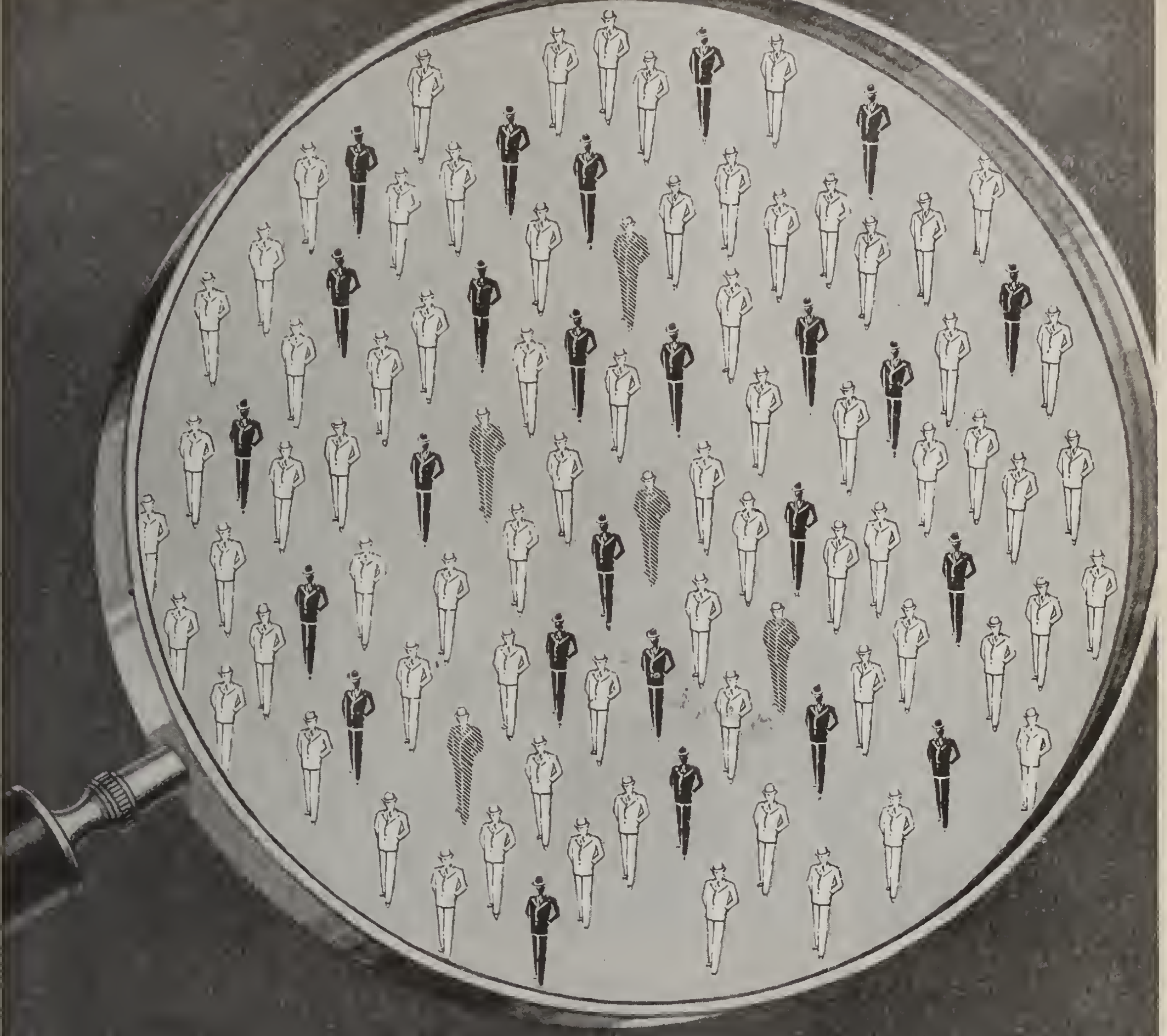
A uniformly potent source of vitamin D such as Oleum Percomorphum, administered regularly in proper dosage, can do more than protect against the gross visible deformities of rickets. It may prevent hidden but nonetheless serious malformations of the chest and the pelvis and will aid in promoting good dentition. Because the dosage is measured in *drops*, Oleum Percomorphum is well taken and well tolerated by infants and growing children. Rigid bioassays assure a uniform potency—100 times the vitamins A and D content of cod liver oil*. Oleum Percomorphum, moreover, is a natural product in which the vitamins are in the same ratio as in cod liver oil*.

Oleum Percomorphum offers not less than 60,000 vitamin A units and 8,500 vitamin D units (U. S.P.) per gram. Supplied in 10 and 50 c. c. brown bottles, also in 10-drop soluble gelatin capsules, each offering not less than 13,300 vitamin A units and 1,850 vitamin D units, in boxes of 25 and 100.

*U.S.P. Minimum Standard

MEAD JOHNSON & COMPANY, EVANSVILLE, INDIANA, U.S.A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons



Those **25 Patients** *who can be saved*

Of one hundred cases developing type I pneumonia, seventy will recover and five will die regardless of treatment. The remaining twenty-five will die without treatment, but can be saved by prompt administration of Antipneumococcic Serum, Felton.

Reports in recent medical literature have shown that the very early use of specific antipneumococcic serum is important. In a series of 160 type I pneumonia cases (R. L. Cecil J. A. M. A. 108:689, 1937) in which specific antiserum was given within twenty-four hours of onset, mortality was reduced to one-third the usual rate in serum-treated cases, and to one-sixth the average rate in cases not receiving serum.

Antipneumococcic Serum (Felton) Type I, Refined and Concentrated, is available in syringe packages containing 10,000 and 20,000 units; Antipneumococcic Serum (Felton) Types I and II, Refined and Concentrated, in syringe packages containing, respectively, 10,000 and 20,000 units of each type.

PARKE, DAVIS & COMPANY · ***Detroit, Mich.***

THE WORLD'S LARGEST MAKERS OF PHARMACEUTICAL AND BIOLOGICAL PRODUCTS

THE DAY YOU FIRST INSPECT IT...

or after you've used it a year

The Pandex will impress you by its extraordinary flexibility, its many novel and eminently practical features, its utter dependability. Like the famed two-tube two hundred milliampere Fluoradex, the new single-tube sixty milli Pandex meets a definite demand. In the small hospital, where the scope of diagnostic x-ray work is limited, it serves adequately for every purpose. It is an excellent auxiliary unit to relieve major equipment for its specialized functions in the large institution.

The brilliant new Westinghouse Pandex is fully described in Bulletin No. 371. Your copy is waiting for you.

WESTINGHOUSE
X·RAY CO·INC·
LONG ISLAND CITY·N·Y·

THE DICK X-RAY COMPANY
MEDICAL ARTS BUILDING MEMPHIS, TENN.

POYTHRESS

AND PROGRESS

THE GROWTH of the POYTHRESS' laboratories within a comparatively short span of life, may only be credited to the confidence and respect won throughout the medical profession.

Steady increase in prescribing and using POYTHRESS' products has continually forced expansion and enlargement of facilities, memorializing a service to medicine.

Nothing short of the most exacting quality in drugs and efficiency in compounding useful remedies could have gained such results, nor earned the patronage of an enlargening circle of practicing physicians.

POYTHRESS and PROGRESS have become synonymous.

WILLIAM P. POYTHRESS & COMPANY
INCORPORATED
RICHMOND, VIRGINIA

MANUFACTURERS OF FINE PHARMACEUTICAL SPECIALTIES

Medical skill and good nursing care

are essential . . . .

and so is Sleep

One thing the patient requires and not the least essential—is sleep. By restoring the physical resources of the body, sleep often turns the tide in favor of recovery.

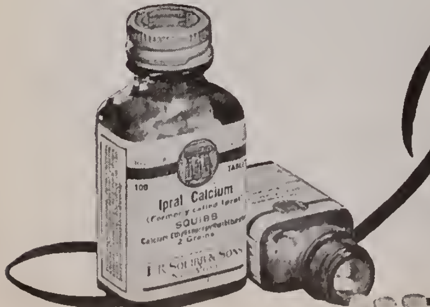
When sleep is difficult, the physician may prescribe Tablets Ipral Calcium with assurance of safety. A small therapeutic dose produces restful sleep closely resembling the normal, from which the patient awakens generally calm and refreshed. Ipral Calcium is readily absorbed and rapidly eliminated. Undesirable cumulative effect may be avoided by proper regulation of the dosage. No digestive disturbance or untoward organic effects have been reported.

IPRAL CALCIUM (calcium ethylisopropylbarbiturate) is supplied in 2-gr. tablets and also in powder form—for use as a sedative and hypnotic.

IPRAL SODIUM (sodium ethylisopropylbarbiturate) is supplied in 2-gr. capsules for hypnotic use and in 4-gr. tablets for preanesthetic medication.

IPRAL CALCIUM (Powder) is available in 1-oz. bottles. Tablets Ipral Calcium 2 gr., Tablets Ipral Sodium 4 gr., and Capsules Ipral Sodium 2 gr. are available in bottles of 100 and 1000.

For literature write the Professional Service Department, 745 Fifth Avenue, New York



Ipral **PRODUCTS**

MADE BY E. R. SQUIBB & SONS, MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

HOYE'S SANITARIUM

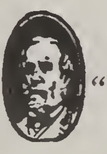
"IN THE MOUNTAINS OF MERIDIAN"
Meridian, Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital



Robert E. Lee Hotel

"The High Spot of Southern Hospitality"

Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager STEWART GAMMILL, Jr., Asst. Mgr.

DOCTOR . . .

Visit Our Booth

What is more assuring to the practitioner or the surgeon, than to know his efforts are corroborated by the best medical minds of today?

What greater asset to his office than an up-to-date medical library?

Let us send out that new book you promised yourself.

J. A. MAJORS BOOK COMPANY

Distributors of
W. B. SAUNDERS MEDICAL BOOKS

BAPTIST HOSPITAL Jackson, Miss.

MISSISSIPPI'S . . . only and most conveniently located Physician's and Surgeon's Supply House

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St. Phone 1444
JACKSON, MISS.

Let's Grow With Mississippi

Your Every Need Quickly Answered

- Surgical Instruments
- Physio-Therapy
- Belts and Trusses
- Rubber Goods
- Wheel Chair Rentals
- Hospital Furniture

Etc.

The Friendly Store of Dependable Service

As Close As Your Telephone

THE TURNER-GOTTEN SANATORIUM

For the Diagnosis and Treatment of Mental and Nervous Disorders

Located on the Raleigh - La Grange Road, five miles east of the city limits. Accessible to U. S. 70 (the Bristol Highway). 53½ acres of wooded land and rolling fields. Equipment new and modern, including the latest equipment for physical and hydro-therapy. Special emphasis is laid upon occupational and physical therapy under the supervision of a trained attendant. An adequate nursing personnel gives individual attention to each patient.

C. C. TURNER, B.S., M.D.
Neuro-Psychiatrist

NICHOLAS GOTTEN, M.D., F.A.C.S.
Neuro-Surgeon

Advancing Years of Happiness

Advancing years of happiness — that's what it means to live with the conveniences and comforts of modern electric home service. For with every passing year new, thrilling aids to Better Living find their way into Mississippi homes. As a basic Mississippi Industry employing more than a thousand Mississippians, this company takes pride in its service — helping housewives to happiness in over 305 cities, towns and communities of the state.

MISSISSIPPI POWER & LIGHT CO.

IN THIS ISSUE

PRES.-ELECT and VICE-PRESIDENTS 1
MID-SOUTH ESSAYISTS 2
MEMPHIS MEDICAL HISTORY—INTERESTING AND INSTRUCTIVE
John C. Ayres, M.D. 13
THE TREATMENT OF ACUTE INTESTINAL OBSTRUCTION
John Lucius McGehee, M.D. 15
RECONSTRUCTIVE SURGERY, WITH SPECIAL REFERENCE TO THE FACE
William Milton Adams, M.D. 23
NEW CONTRIBUTIONS TO OBSTETRICS
Walter A. Ruch, M.D. 29
THE USE OF X-RAY IN CHEST EXAMINATIONS BY THE PHYSICIAN IN GENERAL PRACTICE
J. Cash King, M.D. 32
FOREIGN BODIES IN THE BLADDER
I. G. Duncan, B.S., M.D., F.A.C.S. 36
HEAD INJURIES
R. E. Semmes, M.D. 38
ACUTE OTITIS MEDIA
Chas. D. Blassingame, M.D., F.A.C.S. 42
THE PROBLEM OF ACUTE ABDOMINAL PAIN
E. R. Nobles, M.D., ...44
THE INFRA-RED RAY
S. G. Harnden, M.D. 48
EDITORIALS 53
LIVER FUNCTION AND ITS RELATION TO THE MANAGEMENT OF GALL-BLADDER DISEASE
R. L. Sanders, M.D. 58
DR. R. FORD RATLIFF 59
THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY 59
DR. O. J. T. JOHNSON 60
LETTERS TO THE EDITOR 61
LIST OF EXHIBITORS FOR MID-SOUTH 61
DR. A. F. COOPER 62
COMING MEDICAL MEETINGS 62
EAST MISSISSIPPI STATE HOSPITAL 63
DR. PERCY WALL 65
BOOK REVIEWS 65
DR. JOHN CHAS. HENTHORNE 67
HOW IS THE GENERAL PRACTITIONER TO DIAGNOSE FOOD IDIOSYNCRASIES?
William Calvert Chaney, M.D. 68
CANCER OF THE RECTUM
William D. Haggard, M.D. 71
MISS. STATE MEDICAL ASS'N NEWS 76
WOMAN'S AUXILIARY 97

WITH OUR ADVERTISERS

American Surgical Supply Co. vii
Baptist Hospital, Jackson, Miss. vi
Blue Mountain College ....inside back cover
Coca Cola xx
Courtesy Cards ....xiii, xiv, xv, xvi
Duckworth Drug Co. xviii
E. R. Squibb & Sons iv
Eli Lilly and Company xii
Fenwick Sanitarium ....outside back cover
H. A. Phillips Artificial Limb Co. xviii
Hotel Gayoso xvii
Hoye's Sanitarium v
J. A. Majors Book Company vi
Jefferson Standard Life Ins. Co. xix
Lederle Laboratories, Inc. ix
Lynnhurst Sanitarium xix
Mead Johnson & Company ....inside front cover
McKesson & Robbins, Inc., ...xxii
Mississippi Engraving Co. xx
Mississippi Power and Light Co. x
Mercere's, Inc. xvii
New Orleans Graduate Medical Assembly xviii
Parke, Davis & Company i
Physician's Business Bureau, Inc. xvii
Robert E. Lee Hotel v
The Dick X-Ray Company ii
The Draughon School of Commerce xxi
The Wallace Sanitarium xxi
Turner-Gotten Sanatorium x
Welch's Sanitarium xxii
William P. Poythress & Company iii
53rd Annual Convension of the Mid-South Post-Graduate Medical Assembly viii

PROGRESS in the therapeutic field is the aim of the Lilly Research Laboratories. Research accomplishes this progress. Confidence on the part of the medical profession should be reserved for medicinal products which are supported by adequate laboratory and clinical research. ✓ Look for the Lilly trade-mark.

ILETIN (INSULIN, LILLY)
The first Insulin commercially available
in the United States

PROTAMINE,
ZINC & ILETIN (INSULIN, LILLY)
Developed in co-operation with Dr. H. C. Hagedorn,
of Copenhagen, Denmark, and the
University of Toronto

✓

ELI LILLY AND COMPANY
INDIANAPOLIS, INDIANA, U. S. A.

DR. R. M. ADAMS

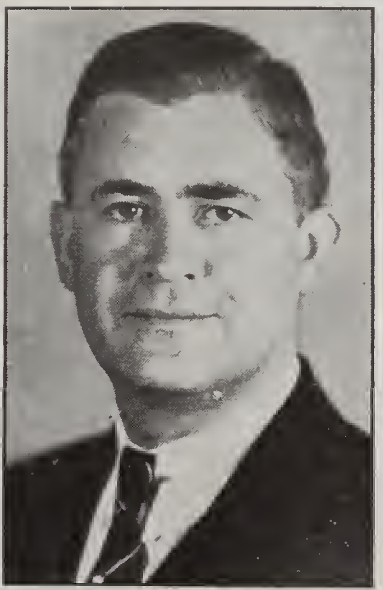
Ripley, Miss.

President-elect of the Mid-South Post-Graduate Medical Assembly who will succeed to the presidency at the close of the February session. He is an able and versatile practitioner who has been a member of the association all of his professional life.

H

DR. J. L. DUNAVANT H

Ripley, Tenn.



DR. C. W. PATTERSON H

Rosedale, Miss.

DR. VAL PARMLEY H

Little Rock, Ark.

These vice-presidents are active in organized medicine in the Mid-South and are strong believers in the Post-Graduate Medical Assembly.

LOOK INTO the faces of the following essayists, note the subject of their addresses, make your plans to hear as many as possible, if not all. Don't forget the luncheon hour where you may ask questions and discuss our medical and surgical problems with the authorities. Visit the exhibitors who are our friends and who help to make this great assembly possible. Converse with your fellow doctors of the Mid-South. Extend a cordial hand of appreciation to the big-hearted and generous doctors of Memphis.

Dr. E. L. King

New Orleans, La.

H

Born in Mound La.

Educated Public Schools New Orleans, La.

M.D. Degree, Tulane University, 1906.

Interned Charity Hospital 190911.

Resident Physician Presbyterian Hospital 1911-12.

Joined teaching staff, Tulane University 1914,, with rank of Instructor in Obstetrics, and Gynecology, later promoted to Assistant Professor then Asso. Professor of Obstetrics, and in 1928 Professor of Obstetrics and Head of the Department.

1918-19 served in the World War in France, with the rank of Captain, in the Evacuation Hospital No. 31.

1930 conducted a course of lectures on obstetrics in Oklahoma, under the auspices of the University of Oklahoma.

1935, course of lectures at the University of Florida, as part of a special week of instruction for practitioners of Florida.

Member of the White House Congress on Child Health and Protection (President Hoover.)

Chairman of the Materman Welfare Committee of the Louisiana State Medical Society.

Member of the following Medical Organizations: Orleans Parish Medical Society, President in 1933. New Orleans Gynecological and Obstetrical Society, Louisiana State Medical Society, American Medical Association, Southern Medical Association, American College of Surgeons, American Gynecological Society, American Association of Obstetrics and Gynecology, Central Association of Obstetricians and Gynecologists, Licentiate of the American Board of Obstetricians and Gynecologists.

Address: "Some of the Common Complications in Pregnancy and Labor." 10:00 a. m. Tuesday, Feb. 15.

Dr. L. A. Buie

Rochester, Minn.

H

Louis Arthur Buie, B.A., M.D., Chief of the Department of Proctology in the Mayo Clinic. Professor of Surgery of the Mayo Foundation—University of Minnesota.

Fellow of the American Proctologic Society.

Fellow of the American College of Surgeons.

President of the American Proctologic Society 1927-28 and 1934-35.

Author of book entitled "Proctoscopic Examination and the Treatment of Hemorrhoids and Anal Pruritus."

Author of book (with Rankin and Bargen) entitled "Colon, Rectum, and Anus."

Address: "Diseases of the Anus and Rectum: Diagnostic and Therapeutic Aspects." 11:00 a. m., Tuesday, Feb. 15.

Dr. J. E. Moore

Baltimore, Md.

Address: "Public Health Implications of the Treatment of Syphilis." 2:00 p. m. Tuesday, Feb. 15.

On a last minute check up it seems that Dr. Moore, of Baltimore, is the "unknown" essayist of the convention. But if he is to be compared with the "unknown God" of whom the apostle Paul spoke he will be the greatest of all. Shakespeare said, "There is no art in telling the mind's construction in the face." And looking into the face of Dr. Moore you can easily tell that he is a gentleman characteristic of the chivalry of his city and a scholar of profound and versatile learning. You may be sure that he will treat his subject in a frank, sincere and thorough manner. He is young enough for activity and old enough for wisdom.

Dr. F. A. Willius

Rochester, Minn.

H

Dr. Willius was born Nov. 24, 1888, at St. Paul, Minn. He received the degrees of B.S., M.D., and M.S. in Medicine from the University of Minnesota. He entered The Mayo Clinic as an assistant in general diagnosis and electrocardiography in 1915, and is now head of the section on Cardiology. He is afellow of the American College of Physicians, and a member of the American Medical Association, the American Congress of Internal Medicine, the American Heart Association, the Minnesota Heart Association (president in 1925), and the Central Society for Clinical Research.

He is also a member of Phi Rho Sigma and Sigma Xi.

Address: "Cardio-vascular Syphilis." 3:00 p. m., Tuesday, Feb. 15.

Dr. Harry C. Solomon

Boston, Mass.

H

b. Hastings, Neb. Oct. 25, 1889; B.S., U. of California; M.D. Harvard, 1934; ass't. prof. psychiatry Harvard Med. School since 1927; Cnief of Therapeutic Research, Boston Psychopathic Hosp. Neurologist Beth Israel Hosp.; Ass't. Neurologist Mass. Gen. Hosp.; Member Advisory Committee Dept. of Public Welfare of Commonwealth of Mass.; Member American Neurol. Ass'n., Boston Soc. Neurology and Psychiatry (Pres. 1928-29) American Psychopathol Ass'n. Am. Ass'n. Pathologists and Bacteriologists Greater Boston Med. So. (ex-pres.) Sigma Xi; Phi Delta Epsilon. Author: *Neurosyphilis* (with Elmer E. Southard) 1918; *Syphilis of the Innocent,* 1922. Off: 270 Commonwealth Ave., Boston, Mass.

Address: "The Treatment of Syphilis of the Central Nervous System." 4:00 p. m. Tuesday, Feb. 15.

Dr. J. H. Means

Harvard Univ., Boston, Mass.

J. H. Means, born in the city of Boston in 1885 where he has lived all of his life. He is a graduate of Harvard College, 1907, and Harvard Medical School, 1911. He then spent two years in Massachusetts General Hospital and followed this with one year in fundamental physiological, part of the time in the Carnegie Institute Laboratory in Boston under Dr. F. G. Benedict, and some of it under Professor Krogh in Copenhagen, Denmark, and Dr. Joseph Barcroft in Cambridge, England. In 1914 he took up a research fellowship of the Harvard Medical School and began the clinical study of calorimetry and its application in clinical medicine, especially those of the thyroid which he has studied ever since.

H

He spent two years abroad as a medical officer in the United States Army, attached to Base Hospt. No. 6, Bordeaux and later transferred to England.

In 1923 he began his full time medical work in Massachusetts General Hospital as professor of Clinical Medicine and Chief of Medical Service. Since 1923 his work on metabolism and the thyroid has been of special interest. A summary of his work can be found in a recent publication by Lippincott and Company entitled "The Thyroid and Its Diseases." Since 1928 he has been a member of the American College of Physicians and on the Board of Regents. He is very enthusiastic about the work of the college. He is now rendering distinguished service as its president. Dr. Means is deeply interested in graduate teaching in general and assures us it is a great pleasure to appear on the program of the Mid-South Postgraduate Medical Assembly.

Address: "The Treatment of Some of the Commoner Medical Emergencies." 8:00 p. m., Tuesday, Feb. 15.

Dr. Alton Ochsner

New Orleans, La.

H

B.A., University of South Dakota, 1918.

M.D., Washington University, St. Louis, Mo., 1920.

Medical Intern and Assistant Resident under Dr. George Dock, Barnes Hospital, St. Louis, Mo., 1920-1921.

Surgical Intern under Dr. A. J. Ochsner, Augustana Hospital, Chicago, Ill., June, 1921 to Oct., 1922.

Exchange Surgical Assistant under Professor Clairmont, Kantonsspital, University of Zurich, Switzerland, Oct., 1922 to Oct., 1923.

Exchange Surgical Assistant to Professor Schmieden, Staedtisches Krankenhaus, University of Frankfurt, Frankfurt-am-Main, Germany, Oct., 1923, to Oct., 1924.

Oct., 1924 to Jan., 1925—Time spent visiting European and American Surgical Clinics.

Jan., 1925 to April, 1926—Surgical practice in Chicago, Ill., associated with Dr. D. A. Orth; also Instructor in Surgery and Surgical Pathology at Northwestern University, Chicago, during this period; visiting surgeon, St. Mary's Hospital and Columbus Hospital.

April, 1926 to July, 1927—Assistant Professor of Surgery, University of Wisconsin Medical School; Assistant Visiting Surgeon, State of Wisconsin General Hospital, Madison, Wis.

July, 1927 to the present time, Professor of Surgery and Head of the Department of Surgery, Tulane University School of Medicine, New Orleans, La.

Senior Visiting Surgeon and Director of Tulane Surgical Unit at Charity Hospital, New Orleans, La.

Consulting Surgeon, Illinois Central Hospital, New Orleans, La.

Consultant in Thoracic Surgery at the Eye, Ear, Nose, and Throat Hospital, New Orleans, La.

Member of the International Surgical Society, American Surgical Association, Society for Clinical Surgery, Southern Surgical Association, American College of Surgeons, American Association for Thoracic Surgery, American Medical Association, Southern Medical Association, Society for Experimental Biology and Medicine, Louisiana State Medical Society, Orleans Parish Medical Society.

Honorary: Alpha Omega Alpha, Sigma Xi, Omicron Delta Kappa,—Alpha Zeta Circle (National Leadership Society), D. Sc. (Hon.), University of South Dakota, 1936.

Co-Editor of "Surgery."

Secretary, Southern Medical Association.

Regent, American College of Surgeons.

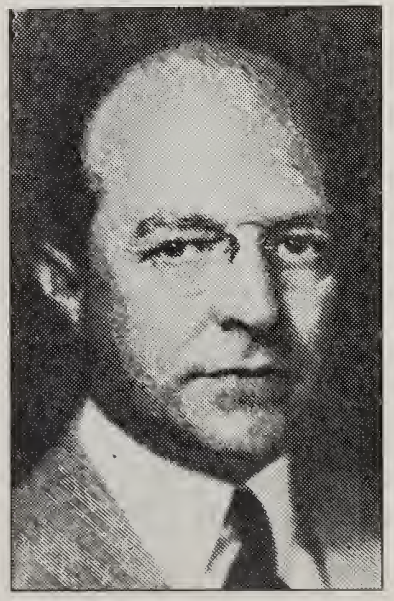
Member of Editorial Board: International Surgical Digest; Archives of Surgery; Journal of Digestive Diseases and Nutrition; Surgery, Gynecology, and Obstetrics.

Author: "Diseases of the Intestine;" Nelson's Loose-Leaf Living Surgery"; "Diseases of the Veins," Lewis's System of Surgery; "Diseases of the Thorax," Brennemann's "Pediatrics;" "Malignant Neoplasms of the Jejunum, Ileum, and Appendix," in book on "Treatment of Cancer and Allied Diseases."

Address: "Peripheral Vascular Disease." 9:00 p. m. Tuesday, Feb. 15.

Dr. A. Graeme Mitchell

Cincinnati, Ohio



H

Born in Salem, Mass., February 22, 1889;

s. Fred Albert and Marie (Graham) M.; graduated Central High School., Philadelphia, Pa.; M.D. U. of Pa., 1910; m. Adele Wentz, of Philadelphia, Oct. 2, 1912; ass't. pediatrician, Children's Hospital., Phila., 1912; instr. in pediatrics, U. of Pa., 1919-21; asso. in pediatrics, 1921-24; prof. pediatrics, U. of Cincinnati (O.), since 1924; director pediatrics and contagious diseases, Cincinnati Gen. Hosp.; chief of staff and med. dir. Children's Hosp. Cincinnati; director Children's Hospital Research Foundation. Served as Lieut., later Capt., Med. Corps, U. S. A., med. dir. Am. Hosp. for Civilians, Neufchateau, France, later with 149th Machine Gun Bn., World War. Med. dir. Babies Milk Fund Ass'n. of Cincinnati; mem. White House Conference on Child Care. Chmn. Sect. on Pediatric of Am. Med. Ass'n., 1935; mem. American Pediatric Soc., (chmn. of Council 1935), Central States Pediatric Soc., Central Soc. Clin. Research, Soc., Pediatric Research, Am. Acad. Pediatrics, Sigma Xi, Alpha Omega Alpha, Alpha Mu Pi Omega; fellow A. A. A. S. Republican. Presbyterian. Club: University. Co.Author: (with J. P. C. Griffith) *Diseases of Infants and Children* (2 vols.,) 1927, (1 vol.) 1933. Pediatric editor *The Cyclopedia of Medicine.* Contbr. *Jour. A. M. A., Am. Jour. Diseases of Children, Archives of Pediatrics, Jour. of Pediatrics,* etc.

Address: "Commonplace Endocrine Problems of Childhood." 9:00 a. m. Wednesday, Feb. 16.

Dr. Jas. H. Hutton

Chicago, Ill.

Member Chicago Medical Society, Illinois State Medical Society, A. M. A., Assoc. for Study of Internal Secretions, American Assoc. for Advancement of Science, Amer. Editors and Author Assoc.; fellow Amer. College of Surgeons.

From 1927 to 1931 was secretary, president-elect and president of the Chicago Medical Society, for many years was a member of the Council of the Chicago Medical Society. Helped to organize and for ten years was chairman of the Scientific Service Committee of the Illinois State Medical Society. In 1930 was appointed consulting endocrinologist to the Illinois Central Railroad, the first appointment of its kind ever made.

In 1933 Dr. Hutton announced his disbelief in the pancreatic theory of diabetes and his idea that this condition was due more to hyperfunction of the pituitary and adrenals than it was to hypofunction of the pancreas; that essential hypertension was due in many instances to the same thing; and that in many cases both conditions should be relieved by low dosage of irradiation to the pituitary and adrenals. This idea has been followed ever since with some degree of success, particularly in hypertension.

H

Address: "The Clinical Significance of Recent Endocrine Developments." 10:00 Wednesday, Feb. 16.

Dr. Hugh Cabot

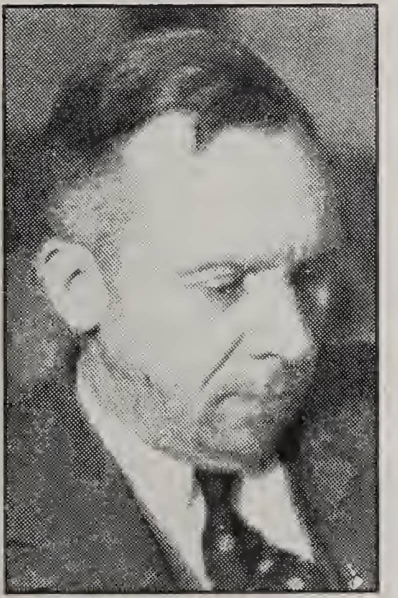
Rochester, Minn.

H

Born at Beverly Farms, Massachusetts, August 11, 1872. He has had the following degrees, position and appointments: A.B., Harvard, 1894; M.D., Harvard, 1898; LL.D., Queen's (Ireland), 1925; visiting surgeon, New England Baptist Hospital, 1900-20; surgeon, out-patient department, Massachusetts General Hospital, 1904-10; instructor genito-urinary surgery, Harvard Medical School, 1910-19; Assistant Professor genito-urinary surgery, Harvard Medical School, 1913-18; Professor genito-surgery, Harvard Medical School, 1918-19; Surgeon, University of Michigan Medical School, 1919-1930; Dean of University of Michigan Medical School, 1921-30; Professor of surgery, University of Minnesota Graduate School, 1930; Surgeon, Mayo Clinic, 1930; Chief Surgeon, Harvard Unit, B. E. F., 1916-17; commanding officer, 1917-18; Surg. Asn. Genito-Urinary Surg. (president 1917); American College of Surgeons; American Medical Association; Urological Association (president, 1910-12); Association of American Medical Colleges (president, 1925-27: Mississippi Valley Medical Association, president, 1915; Association Internationale d'-Urologic; American Surgical Association; Member Board of Overseers, Harvard College, 1929-35. Address: "Our Recent Knowledge of the Pathogenesis of Renal Calculus." 11:00 a. m. Wednesday, Feb. 16.

Dr. Harvey B. Stone

Baltimore, Md.



H

The following record is evidence of Dr. Stone's superior fitness. He received his B.A. degree from Johns Hopkins University in 1902, his M.D. from the same institution in 1906 and then came the following appointments: Resident House Officer in Surgery at the Johns Hopkins 1906-07, Adjunct Professor of Surgery at the University of Virginia 1907-10. In 1910 he returned to Baltimore and since then has filled various grades in the surgical staff at the Johns Hopkins Hospital and Associate Professor of Surgery in the Medical School. He is also serving on the medical staff of the following hospitals: Union Memorial, Church Home and Infirmary, Women's Hospital and others. He holds membership in the following medical societies: The American Medical Association, the American College of Surgeons, the International Surgical Society, the American Surgical Association, the Southern Surgical Association, (president last year), the American Society of Clinical Surgery, the Surgical Research Society. For the last twenty-five years he has written fifty publications or more on the majority covering some aspect of gastro-intestinal surgery, much of it experimental and dealing with the endocrine glands. Among other publications is the monograph on "Hernia in Lewis's System of Surgery." Surgeons of the Mid-South certainly have something to look forward to in his appearance at the Mid-South. Address: "Further Reports on Cross Grafting of Endocrine Glands." 2:00 p. m. Wednesday, Feb. 16.

Dr. Cyrus C. Sturgis

Ann Arbor, Mich.

H

Born in Pendleton, Oregon. B.S. University of Washington; M.D. Johns Hopkins University, 1917. Medical House Officer Peter Bent Brigham Hospital 1917-18; First Lieut. Medical Corps U. S. Army 1918-19; Assistant Resident Physician, Peter Bent Brigham Hospital 1919-20; Resident Physician Peter Brigham Hospital 1920-22; Teaching Fellow in Medicine, Harvard Medical School 1920-22; Faculty Instructor in Medicine, Harvard Medical School 1922-25; Associate Physician, Collins P. Huntington Memorial Hospital 1925-26; Assistant Professor of Medicine, Harvard Medical School 1925-27; Physician Peter Bent Brigham Hospital 1925-27.

Present positions: Professor of Medicine, University of Michigan Medical School; Director, Thomas Henry Simpson Memorial Institute for Medical Research: Director, Department of Internal Medicine. University Hospital.

Society memberships: Association of American Physicians, American College of Physicians, American Society for Clinical Investigation, Central Society for Clinical Research, American Association for the Advancement of Science and American Clinical and Climatological Association.

Address: "Some Recent Advances in the Field of Hematology." 3:00 p. m. Wednesday, Feb. 16.

Dr. Gabriel Tucker

Philadelphia, Pa.

H

Prof. Bronchoscopy and Laryngeal Surg. Univ. Penn., Philadelphia, Pa.

Address: "Cancer of the Larynx; Its Management and Its Relation to Benign Tumors of the Larynx." 4:00 p. m. Wednesday, Feb. 16.

Dr. E. R. Long

Philadelphia,, Pa.

H

Esmond R. Long, M.D., Director of Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis and Professor of Pathology, School of Medicine, University of Pennsylvania, Philadelphia, Pa. Born in Chicago, June 16, 1890. Graduate and Doctor of Philosophy, University of Chicago. M.D. from Rush Medical College, Chicago. Graduate studies in pathology of tuberculosis, German University of Prague. Faculty of Department of Pathology, University of Chicago 1919-32. Special work in Carnegie Institution of Washington and Saranac Laboratory, New York. Member of various medical and special pathological societies, including American Medical Association, Association of American Physicians, Institute of Medicine of Chicago, College of Physicians of Philadelphia, American Association of Pathologists and Bacteriologists, etc. Author of works on pathology and tuberculosis. Member of Board of Directors of the National Tuberculosis Association for past seven years. Particularly associated with Committee on Medical Research of National Tuberculosis Association. At present President of National Tuberculosis Association. Concerned especially in research on pathology of tuberculosis, case finding methods in tuberculosis, and improvement of the tuberculin test. Awarded Trudeau Medal of the National Tuberculosis Association in 1932.

Address: "Types of Pulmonary Tuberculosis and Factors in Spread of the Disease." 9:00 a. m. Thursday, Feb. 17.

Dr. A. F. Hartmann

St. Louis, Mo.

H

Professor of Pediatrics Washington University School of Medicine.

Physician-in-Chief St. Louis Children's Hospital.

Born October 30, 1898, St. Louis, Mo. Degrees: B.S. Washington University 1919, M.S. Washington University 1921, M.D. Washington University School of Medicine 1921.

Internship: St. Louis Children's Hospital 1921-22; Assistant Resident, St. Louis Children's Hospital 1922-23; Resident, St. Louis Children's Hospital 1923-24.

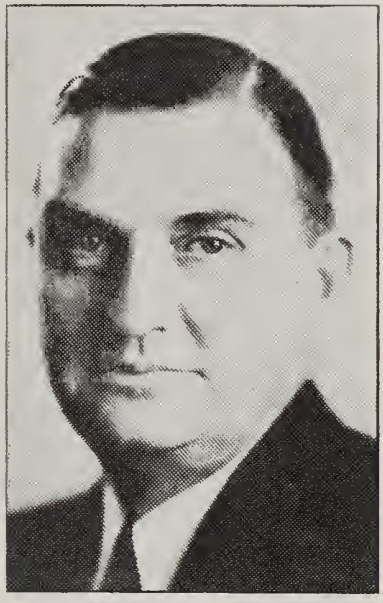
Teaching Appointments: Instructor in Pediatrics, Washington University School of Medicine 1923-25; Assistant Professor Pediatrics, Washington University School of Medicine 1925-27; Associate Professor Pediatrics, Washington University School of Medicine 1927-36; Professor Pediatrics, Washington University School of Medicine 1936.

Address: "Some Aspects of Hypoglycemia in Infants and Children." 10:00 a. m. Thursday, Feb. 17.

Address: "The Use of Sulphanilamide in the Treatment of Infections." 2:00 p. m. Friday, Feb. 18.

Dr. Thos. G. Orr

Kansas City, Mo.



H

Professor of Surgery, University of Kansas, and Surgeon-in-Chief to the University of Kansas Hospitals, Kansas City, Mo.

Address: "Chronic Disease of the Gallbladder." 11:00 a. m. Thursday, Feb. 17.

Dr. S. D. Kramer

Brooklyn, N. Y.

H

Dr. Kramer was admitted to the degrees of

B.S. by the College of the City of New York, 1919; M.D. by the College of Physicians and Surgeons of Columbia University in 1920; interne at the Lenox Hill Hospital and resident at the Hebrew Infant Asylum of New York, from 1920 to 1923; and practiced Pediatrics for a number of years in Brooklyn, N. Y.

He attended Massachusetts Institute of Technology in the year 1927 and obtained the degree of Doctor of Philosophy in 1929, the subject of the thesis being "Rheumatic Fever." He was appointed a member of the staff of the Harvard Infantile Paralysis Commission from 1928 to 1932, and throughout his stay in Boston, acted as a Member of the Staff of the Children's Hospital.

In 1932, The Long Island College of Medicine of Brooklyn, New York, invited Dr. Kramer to carry on his researches in infantile paralysis at that institution. The Infantile Paralysis Commission of the Long Island College of Medicine was then organized and Dr. Kramer was appointed and has acted as Director of this Commission up to the present time.

He is at this writing Assistant Professor in Pediatric Research and Director of Infantile Paralysis Research at the Long Island College of Medicine; Associate Attending in Pediatric Research at the Jewish Hospital; and Attending Pediatrician at the Trinity Hospital in Brooklyn, New York. His contributions to the literature are numerous, and he has exhibited and addressed many medical organizations on poliomyelitis.

Address: "An Evaluation of a Number of Procedures Recommended for the Prevention of Poliomyelitis." 2:00 p. m. Thursday, Feb. 17.

Dr. C. H. Crego, Jr.

St. Louis, Mo.

Received medical degree from the University of Michigan with the class of 1923. Was on the surgical service at the University Hospital, Ann Arbor, Michigan, from 1923 to 1925. Resident Surgeon at Shriners' Hospital for Crippled Children, St. Louis, 1925 to 1927. Assistant Surgeon Shriners' Hospital for Children, St. Louis, 1927 to 1930. Appointed Chief Surgeon, Shriners' Hospital for Crippled Children, St. Louis, 1930. Also Assistant Professor of Clinical Orthopedics at Washington University School of Medicine, St. Louis.

H

Address: "The Orthopedic Treatment of Poliomyelitis." 3:00 p. m. Thursday, Feb. 17.

Dr. Russell L. Haden

Cleveland, Ohio

H

Medical educator, b. Palmyra, Va., May 22, 1888; s. Clifton James and Nicie Delima (Landram) H.; A.B., U. of Va., 1910; A.M. 1911; M.D., Johns Hopkins, 1915; m. Isabel McLeod Smith, of Norfolk, Va., October 6, 1917; children—Russell Landram, James Coke. Resident house officer, Johns Hopkins Hosp., 1915-16; asst. resident physician, Henry Ford Hosp., Detroit, Mich., 1916-17; dir. of labs., same hosp., 1917-18, 1919-21; assoc. prof. medicine, U. of Kan., 1921-23, prof, exptl. medicine 1923-

30; head of dept. medicine, Cleveland (Ohio) Clinic, since 1930. First Lt. Med. Corps, U.S.A., Asst. chief med. service base hosp., Camp Lee, Va., 1918-19. Mem. A.M.A., Am. Assn. Pathology and Bacteriology, Am. Soc. for Clin. Investigation. Am. Clin. and Climatol. Assn., Assn. Am. Physicians, Phi Beta Kappa, Sigma Xi, Theta Delta Chi, Nu Sigma Nu, Alpha Omega Alpha, Pithotomy Club. Democrat. Methodist. Author: Clinical Laboratory Methods, 1923; Dental Infection and Systemic Disease, 1928. Awarded gold medal by Radiol. Soc. America for contributions to dental roentgenology, 1929. Contbr. on diseases of the blood, focal infection and intestinal obstruction. Home: 2673 N. Park Boul. Office: Cleveland Clinic, Cleveland, Ohio.

Address: "The Treatment of Anemia." 4:00 p. m., Thursday, Feb. 17.

Dr. J. R. Hume

New Orleans, La.

H

1924-25 Clinical Assistant in Otolaryngology at Tulane University. 1925-1931 Assistant Prof. of Otolaryngology. 1931 to date, Prof. of Otolaryngology and Head of the Department.

In the Graduate School—Clinical Assistant with rank of Assistant Surgeon Eye, Ear, Nose and Throat Hospital 1931. 1931 to date Prof. of Otolaryngology and Head of Graduate Department. Surgeon in Charge of Otolaryngology, Eye, Ear, Nose and Throat Hospital. 1931 to date, Surgeon in Charge Department Otolaryngology, Hutchinson Memorial, Tulane Clinic, Past President of the Louisiana-Mississippi Ophthalmology and Otolaryngology Society.

Address: "The Acute Ear, It's Danger Signs and Complications. 9:00 a. m., Friday, Feb. 18.

Dr. Ramon Castroviejo

New York, N. Y.

H

Born in Spain in 1904 and was graduated from the Medical School of the University of Madrid in January of 1927. Practiced there with father, who was an ophthalmologist. Came to the United States in October of 1928. For two years was with the Chicago Eye, Ear, Nose and Throat Hospital. Afterwards spent one year at the Mayo Clinic doing research work. For the past five years has been connected with the Institute of Ophthalmology—Columbia Presbyterian Medical Center.

Research Fellow of Columbia University.

Attending Ophthalmologist of the Vanderbilt Clinic and Assistant Surgeon at the Institute of Ophthalomology — Columbia Presbyterian Medical Center.

Address: "Surgery of the Cornea." 10:00 a. m., Friday, Feb. 18.

Dr. Geo. W. Kosmak

New York, N. Y.

H

Editor and Founder of the American Journal of Obstetrics and Gynecology.

Consultant in Obstetrics, New York State Department of Health.

Consultant, Federal Children's Bureau, Washington, D. C.

Attending Surgeon, New York Lying-In Hospital, 1905-1926.

Chairman, Medical Board, Maternity Center Association, New York City.

Consultant in Obstetrics, several New York Hospitals.

Secretary, Advisory Obstetrics Council, New York Department of Health.

Vice-President, American Gynecological Society.

Fellow, American Association of Obstetrics and Gynecologists.

Fellow, American College of Surgeons.

Author:— Monograph, Toxemias of Pregnancy, D. Appleton and Co., 1923.

Many contributions to obstetrical literature.

Address: "The Favorable and Unfavorable Results from the Practice of Certain Modern Obstetric Trends and Procedures." 11:00 a. m. Friday, Feb. 18.

Dr. Mont R. Reid

Cincinnati, Ohio

1

Born in Oriskany, Va., April 7, 1889; s. Benjamin Watson and Harriet Pendleton (Lemon) R.; student Daleville (Va.) Normal School., 1902-04; A.B., Roanoke, Coll., Salem, Va., 1908; M.D., Johns Hopkins, 1912; m. Elizabeth Harmon Cassatt, Jan. 26, 1929; 1st son, Alfred Cassatt. Interne Johns Hopkins Hospital., Baltimore, Md., 1912-13; Asst. resident pathologist, 1913-14, resident surgeon, 1914-18; resident surgeon, 1918-21, assoc. surgeon, 1921-22; instr. in surgery, 1914-18, assoc. in surgery, 1918-22; asso. prof. surgery, U. of Cincinnati, 1922-31, prof. since 1931; visiting prof. surgery, Peking (now Peiking, China) Union Medical College., 1925-26; dir. surg. service, Cincinnati General Hospital, Children's Hospital. Served as 1st Lieut. in Medical Corps, U. S. A., World War. Mem. A. M. A., Am. Surg. Assn., Southern Surg. Soc., Internat'l Surg. Assn., Clin. Surgery, A. A. A. S., 2d Vice-President, Amer. Surg. Asso. June, 1934. Matas Medal, Jan. 23, 1934. Honorary member of Academy of Surgery of Detroit, May 28, 1935.

Phi Chi Alpha. Republican. Presbyterian. Clubs: University, Camargo, Cincinnati Country. Contrib. Chapter on Surgery of Sympathetic Nervous System, Dean Lewis System of Surgery, 1929; also contrib. to Journ. Exptl. Medicine, Bulls of Johns Hopkins Hosp., Trans. Southern Surg. Ann., Journal A. M. A., Journal of Medicine, etc.

Address: "The Treatment of Wounds." 3:00 p. m., Friday, Feb. 18.

MEMPHIS MEDICAL HISTORY — INTERESTING AND INSTRUCTIVE

By Dr. John C. Ayres
Memphis, Tenn.

In the fall of 1898 I was under contract to come to Memphis to teach in the Memphis University School. A few days before I left home a letter came from J. W. S. Rhea, one of the principals of the school, telling me that Memphis was in the throes of a yellow fever scare and that all passengers from points south of Memphis were taboo. I was instructed to buy my ticket from Gatesville to Cairo, Ill., and then another one from Cairo to Memphis. Inclosed was an order to "pass J. C. Ayres from Cairo, Ill., through the quarantine, in to Memphis." This passport was duly certified by Dr. Marcus Hass, Secretary of the Board of Health of the City of Memphis.

As we approached Memphis an inspector came through the train investigating every passenger who expected to stop there. He asked all sorts of questions that no one could possibly answer unless he had lived in Memphis. To say that I was nervous isn't half of it; I didn't know one single landmark in the town. I could see myself interned in quarantine or maybe locked up for illegal entry. Imagine my relief when the inspector absent-mindedly passed me by without a question. I have since learned that the handsome inspector was none other than Dr. James Lindsay Andrews.

I must have been very much relieved because I walked into the Peabody Hotel—where Lowenstein's now stands—and signed my real name and gave Gatesville, Texas, as my home. The clerk looked at me as if he thought me crazy; he warned me that the police would have me before morning and advised me to go elsewhere. So with grips in hand I slipped out the side door and went east on Monroe until I reached Second Street and the Franciola Hotel where I registered under an assumed name as "from Memphis."

Dr. Andrews afterwards told me that there were actually two well developed cases of yellow fever in Memphis in 1898. Anyhow the citizenry presented Dr. Herber Jones, president of the board of health, with a handsome silver service as an expression of its appreciation for his having kept yellow fever out of Memphis. Dr. B. G. Henning said that Dr. Hass did the work, Dr. Andrews furnished the brains, and Dr. Jones got the glory.

After 1898 there was no more yellow fever in Memphis although there was a mild scare in 1903 and Memphis was quarantined for a short time.

As a little boy I had heard my grandmother tell about Memphis during war time and about several epidemics of Cholera and yellow fever that raged there; how her oldest son had ridden with Forest on the fateful night when he captured Memphis and chased the Yankee general out of the Gayoso Hotel in his night-shirt.

My grandparents lived in Obion County and once, long before the Civil War, grandfather contracted cholera and brought it home to grandmother. Both of them were desperately sick but both got well.

At the time of the last and the worst yellow fever epidemic, in 1878, my parents lived in Weakley, Tennessee. My father's saw-mill and all available hands were busy night and day making coffins for Memphis victims.

This epidemic was the greatest that ever befell Memphis. The panic and horror baffles description. People deserted the town like rats leaving a sinking ship. They left on foot and by every available mode of transportation. They actually fought for space on boats and trains. Men not only deserted their homes but in many instances their families. Most of the homes in the line of flight refused sanctuary to any refugee, but grandmother's house was open to all comers. One victim died there, but none of her family contracted the disease.

Against this black background there stands out in bold relief the heroic self-sacrificing work of the doctors. They stood true to the best traditions of a great profession. There stood true to the best tradition of a great profession. There were only two or three exceptions and their places were more than filled by some thirty odd volunteers from the outside.

Dr. John Erskine, who was president of the local medical society, died of the fever; Dr. Robert Mitchell was president of the Howard Association (an organization of volunteer workers); and Dr. J. B. Thornton was superintendent of the City Hospital. These were the leaders but there were scores of others whose work was just as fine.

The epidemics of 1877 and '78 left Memphis prostrate and bankrupt—physically and financially—but not spiritually, for her citizenry had gone through the fire and what was left was pure gold. This applies especially to the medical profession and exerted an influence that sustained us in the splendid work that our profession did for the refugees from the Mississippi River Flood of 1897.

When I came to Memphis the corporate limits had just been moved from Dunlap to McLean Street, and the City Hospital from the old wooden building, in what is now Forest Park, to a new brick building where the John Gaston Hospital now stands. The old dilapidated wooden building was still standing. The Memphis Hospital Medical College was still located on Union just east of Walnut.

In the fall of 1899 the Memphis University School moved in its new building on the west side of the old hospital lot. I had sleeping quarters in the new building and it was here that I got a taste of the playfulness and general cussedness of the medical student. All hours of the night I was disturbed by songs, oaths, yells and gunfire, but when on two successive Saturday nights they threw bricks through my window, covering my bed with showers of broken glass it was too much. So I demanded that I be furnished with a body guard. It's a thousand wonders that some of my fellow Texans didn't take a pot shot at my guard.

Memphis doctors of today didn't receive all of their cultural heritage from the heroes of '78. As the political greatness of America springs from many lands, so does the professional greatness of Memphis doctors come from many sources. Whether any of it had its beginning in the Memphis Medical College or the Botanico Medical College—both founded in 1846 and both long since closed—I do not know; but my generation is still under the influence of the great doctors and teachers of the old Memphis Hospital Medical College: Erskine, Crawford, Smythe, Frank Jones, Venn, Rogers, Henning, Sinclair, Minor and Kraus, who have passed to their reward. And there are still living and still young several full professors under the old regime, Dr. B. F. Turner, Dr. E. E. Francis, Dr. J. L. Andrews, Dr. J. B. McElroy

All of these men and many of the younger teachers of the old school came into the combined schools when the University of Tennessee came down from Nashville and consolidated with the two Memphis schools.

The other Memphis School that went into this combine, the College of Physicians and Surgeons, also had many distinguished teachers. The Drs. Maury, the Drs. Toombs (fathers and sons), Dr. Goltman, Dr. LeRoy and many others, including some of the younger members of the "old school" faculty. And there have been many men not connected with these schools who, through the medical societies, have helped to hold the local profession on a high scale.

Today the College of Medicine of the University of Tennessee stands as one of America's great institutions. On its faculty are many nationally known scientists and clinicians. The relation between the doctors on the faculty and those outside the faculty is unique in that it is one of the utmost friendliness and cordiality. This cooperative spirit is undoubtedly, to a great degree, responsible for Memphis' nationwide reputation as a medical center.

The Tri-State Medical Society was organized by members of the faculty of the old Memphis Hospital College and at first served as a sort of postgraduate course for the doctors of the surrounding country. After the consolidation of the schools the younger men began monopolizing the program with papers that were largely propaganda for themselves. As a consequence attendance began to fall off and the members began to lose interest. It looked as if the old society was on its last legs until a Daniel arose in our midst in the form of our genial secretary, Dr. Arthur F. Cooper; and out of his head there came an idea and out of this idea evolved the Mid-South Postgraduate Medical Assembly.

That the Memphis medical profession did not lose by this change is attested by the fact that every year Memphis doctors are invited to address societies in this country and abroad; and that hundreds of patients come from all over the country and place themselves under the care of Memphis specialists.

◆

The Treatment of Acute Intestinal Obstruction

JOHN LUCIUS McGEHEE, M.D.*
MEMPHIS, TENN.

THE SUBJECT of this address "The Treatment of Acute Intestinal Obstruction," was selected because we regard it as one of our major problems, for the reason that it is essentially a surgical problem and for the reason that it is a clinical problem which offers marked opportunity for improvement in our end results.

Since the dawn of the era of abdominal surgery, a remarkable decrease in the mortality rate of abdominal disasters has occurred. Only in the last seven years can any similar improvement be boasted of in the surgery of intestinal obstruction.

In 1888 intestinal obstruction was a major subject of discussion at the meeting of the American Association of Physicians and Surgeons. Two celebrities of that day led the discussion, Nicholas Senn and Reginald Fitz, Senn presenting the surgical aspects and Fitz the medical views. It was the consensus of the meeting that "when after two days of medical treatment no improvement has resulted, recourse then should be surgery." Today it is universally conceded that when the diagnosis is made the patient should be subjected to surgical therapy. Despite this general acknowledgement that surgery is the only rational and possible treatment, the results in acute intestinal obstruction are still at best deplorable.

The trouble is that in a lamentable number of cases our practice does not accord with our theory. It is the late diagnosis due to the failure of the medical man to appreciate and properly to evaluate the early warning signs of abdominal pain, vomiting, blocked bowel and audible peristalsis that finally results in an operation, which, in most instances, is just a gesture of despair and which operation, unfortunately, in many instances, is performed by an operator who does not appreciate the essential pathology, who is not cognizant of the disturbed physiology and who, as a consequence, fails to appreciate the essential postoperative therapeutic indications.

What, then, are the necessary and ultimate factors in the production of an improved mortality rate?

1. Early diagnosis.
2. A simpler clinical classification of the pathology.
3. A therapy in harmony with present day knowledge of the disturbed physiology.

THE EARLY DIAGNOSIS

The conclusion of the whole matter is that the prognosis and rationale of treatment are dependent upon the time element. By that we mean the elapsed time from onset to the institution of surgical treatment. The diagnosis of intestinal obstruction is essentially a clinical problem. The onset and chronological order of symptoms and signs are characteristic: (1) abdominal pain, colicky in character, followed by (2) vomiting, (3) audible peristalsis, (4) blocked bowel and (5) normal temperature constitute the five cardinal signs of acute obstruction. No instruments of precision or refined laboratory methods are required. A clinical thermometer and an enema can are the only indispensables. A carefully taken history and physical examination are fundamental. The very hour of onset is announced. The primary warning sign, colicky pain, is repeated every few minutes and soon followed by vomiting. Woe unto the patient and shame unto the physician when these warning proclamations are silenced by a hypodermic injection of morphine or aggravated by the administration of purgatives. As so well expressed by the late lamented C. Jeff Miller,[1] "Morphine produces a false sense of security on the part of the patient and puts a screen in front of the signs. Better that the physician busy himself with determining the cause of the pain rather than with its alleviation." This is not always easy. The patient cries out with pain; the anxious relatives demand that something be done.

---

*From the Department of Surgery, University of Tennessee, Memphis, Tenn.

The humane physician is sorely tempted to give morphine but this is one set of circumstances in which nihilism is true wisdom. "Purgatives," as Dr. William D. Haggard[2] well observes, "simply compound the felony of delay." By increasing a peristalsis that is already too active, they serve to augment the distention of an already distended bowel and to increase bacterial activity, while if the stomach, and very properly so, refuses to tolerate them, the body, as a result of increased vomiting, is still further depleted of its fluids. However, the early recognition of acute intestinal obstruction by the profession and laity is an Utopian dream. We are faced with a condition and not a theory. There will always be late cases.

A SIMPLER CLINICAL CLASSIFICATION OF THE PATHOLOGY

One of the most far-reaching advances in the approach to the problem of acute intestinal obstruction has been the recent endeavor of surgical pathologists and surgeons toward a simpler clinical classification. There are so many etiological factors and so many types to consider pathologically that one becomes bewildered and confused when at the bedside of the individual patient. The point of view is simplification of etiological factors so that proper treatment immediately suggests itself. Wangensteen[3] has given us such a clinical classification. In it he groups the 20 odd causes of acute intestinal obstruction into four groups.

1. MECHANICAL TYPE
    - (a) Due to narrowing of lumen
        1. Congenital — atresia, etc.
        2. Acquired—stricture, etc.
    - (b) Neoplasm
        1. Of the intestine
        2. By compression from without or within
    - (c) Miscellaneous
        1. Gallstones
        2. Foreign bodies, etc.

II. ADHESIVE TYPE
- (a) Inflammatory — traumatic
- (b) Congenital

III. STRANGULATION TYPE
- (a) Hernia
- (b) Volvulus
- (c) Intussusception
    1. Mensenteric thrombosis
    2. Buerger's disease, etc.

IV. ILEUS NERVOUS TYPE
- (a) Paralytic—adynamic
- (b) Spastic—dynamic

Observing this classification, one can readily see how a reasonably accurate inference at the bedside and more reasonably accurate classification on the operating table can be made and that the means of "mechanical relief" suggests itself in a given case.

THE DISTURBED PHYSIOLOGY

One of the most important aspects of this problem, the study of which has contributed most to a rational therapy and better results, is the knowledge of the disturbed physiology. "Only recently is the view gaining acceptance that the final factors in mechanical obstruction are usually edema and spasm of the gut. There is ample evidence that the edema and spasm at the site of obstruction accountable for the acute stage need be only temporary, for on no other basis can the history of previous obstruction crises with spontaneous recovery or after enterostomy be explained." (Bartlett[4]).

Edema and spasm, producing blockage, followed by distention of the intestinal wall and the consequential vascular changes of distention, producing a reverse peristalsis (clinically manifested by vomiting) with the final result of water-loss, dechlorination and toxemia, constitute the essential pathology of acute intestinal obstruction.

A great deal of confusion has existed as to the mechanisms and clinical factors which are responsible for the so-called toxemias associated with intestinal obstruction. Broadly speaking, two main theories of the causative factors in the toxemias have been supported both by clinical observation and animal experimentation. One theory has placed the emphasis upon a toxin or toxins originating in the intestine or in the intestinal contents above the obstruction (Cannon and Murphy,[5] Whipple and Stone.[6]) The other theory has emphasized the chemical and physical changes occurring in the blood and other tissue secondary to vomiting, which is so characteristic of the condition (Haden and Orr,[7] Gatch, Trussler and Ayres,[8] Burgess, Walsh and Ivy.[9])

The toxin theory of obstruction toxemia has now been subordinated to the chemical theory that toxic symptoms are explicable in terms of altered salt and water concentration in the blood and other tissues.

The chemical changes which occur in the blood as a result of intestinal obstruction are explicable in terms of the degree of interference with normal reabsorption of digestive secretions. Excessive vomiting removes not only large quantities of water, but also electrolytes, principally chlorides and fixed base. The relative excess of sodium radicals in the blood makes possible retention of more carbon dioxide as bicarbonate and thus accounts for the observed rise in CO_2 combining power of the plasma. As a result also of the vomiting, a large amount of fluid is lost, resulting in concentration of the blood plasma and the interstitial body fluids are drawn upon heavily and the diminution of these fluids is reflected in the dry skin and shrunken subcutaneous tissues (dehydration).

The viscosity of the blood may be so increased that a tenfold reduction in the volume flow may occur. This viscosity must interfere seriously with the respiratory and other functions of the blood, and depress renal activity. Indeed, a consistent finding in obstruction is an increase, up to 1000 per cent, in the blood N. P. N., this increase being chiefly in the urea fraction. It seems certain that increase in blood N. P. N. is not altogether or mainly a retention phenomenon. Despite the diminished renal function, there is an increase in nitrogen excretion which may be four or five times the normal. These facts are indicative of an intensive increase in tissue destruction. Dehydration of the tissues is the most likely explanation, although the action of some circulating toxic factor is not precluded. Based on this chemistry, a rational therapy has been developed which promises the greatest advance yet attained in the treatment of intestinal obstruction. We will speak of it as **replacement therapy.**

The epochal work of Haden and Orr[7] in 1923 showed that the administration of saline solution (NaCl) in simple obstruction could prolong life until death resulted from starvation. It is of particular interest that distilled water alone or solutions of dextrose and salts other than sodium chloride are not effective in preventing dehydration and other typical blood and tissue changes associated with obstruction.

So speaking chemically, first, reduction in blood chloride, second, increase in blood N. P. N. and, third, CO_2 combining power are manifestations of intestinal obstruction with vomiting. A knowledge of these chemical factors is necessary for an understanding of the problem and for the direction of intelligent postoperative treatment.

What are the indications for treatment, taking the cases as they come—some early, most late, some too late? There are two general basic principles to be complied with, namely, first, **mechanical** relief and, second, **replacement therapy.**

MECHANICAL RELIEF

The means of mechanical relief include section of bands, resection, enterostomy and cecostomy, and colonic tube drainage, for a long time standardized methods, and recently, suction siphonage (Wangensteen[10]).

REPLACEMENT THERAPY

Replacement therapy includes the judicious use of sodium chloride, dextrose and water. The type and character of treatment will depend upon, first, the elapsed time, i.e., from onset to the time of institution of rational therapy, second, the site, upper middle or lower third obstructions, third, the nature of the original lesion, fourth, the physiological status of the intestine and finally, fifth, the chemical and metabolic status of the patient.

It must be very evident that the successful surgeon must give thought not only to the fact of obstruction, but to its underlying cause and type, its probable duration, with consequential changes in the intestinal wall and the chemical and metabolic status of his patient before he can possibly outline a successful plan of therapy.

Let me here repeat: The essential pathology of acute intestinal obstruction is: Edema and spasm producing blockage, followed by distention, producing a reverse peristalsis (clinically manifested by vomiting) with the final result of water loss, dechlorination and toxemia.

In combatting this pathology, let me call your attention to the advantages of: first, continuous suction siphonage (Wangensteen) of the upper gastro-intestinal tract, second, enterostomy done according to the Witzel technic, third, the necessity for a controlled replacement therapy during its use, and, fourth, the value of morphine judiciously used.

The immediate necessity is obviously twofold: first, to empty and to keep continuously empty the obstructed intestine of fluid and gas in order that structural damage to the bowel wall may be avoided, tonus recovered and spasm and edema allowed to subside. In other words, continuous intestinal deflation. second, the prevention of a fatal chemical derangement by replacement therapy.

The Wangensteen apparatus (suction siphonage) fulfills the first indication beautifully. The continuous administration intravenously of saline solution (NaCl) and glucose fulfills the second. The variation in the amount of NaCl is governed by the plasma chloride needs. Calories are supplied by the glucose, and water balance is maintained.

High obstruction, pyloric, at site of gastrojejunostomy, adynamic ileus and dynamic (spastic) ileus lend themselves beautifully to this type of therapy. Enterostomy (Witzel technic) in low obstruction accomplishes the same purpose in continuous intestinal decompression and prevents structural changes in the gut wall with the additional advantage of the possible introduction of nutriment.

There are cases in which suction siphonage and enterostomy in combination are indicated; particularly is this true in late low obstructions.

As a means of preoperative preparation in late bad risk cases, suction siphonage with replacement therapy has a place, as illustrated by a recent case admitted five days after onset, vomiting intestinal contents, great abdominal distention, pulse 160, subnormal temperature, low blood-pressure (90/60), blood chlorides 260, N. P. N. 60, scanty urine with the listless sunken eyes, the facies indicative of approaching dissolution. Strange to relate, within a few hours after the institution of suction siphonage with Wangensteen apparatus and replacement therapy with hypertonic saline solution, the entire picture was changed. Vomiting ceased, distention was gradually relieved, the temperature rose to normal. The urinary excretion rose to 2000 cc. daily, the blood chlorides rose to 475, the N. P. N. fell to 30, the pulse rate at the end of five days was 90 and the patient was converted into a safe elective case for operation.

In strangulation types, as hernia, intussusception, volvulus, mesenteric thrombosis, immediate operation is indicated. Relief of strangulation and exteriorization in non-viable types rather than resection is advocated followed by replacement therapy.

As to morphin, it has long been believed and taught by a majority of clinicians that opium and its alkaloids relax gastro-intestinal spasm and stop all peristalsis. Today we must forget this age old concept.

As demonstrated by Thomas G. Orr[11] and reported by him in the "Annals of Surgery," November, 1933, "Morphin and related opium derivatives, when given hypodermically, stimulate the tone, rhythmic contractions and in some degree peristaltic waves of the small intestine for a period of at least six hours." "To prevent overdistention of the small intestine, morphin is indicated in the treatment of acute peritonitis, intestinal obstruction and so-called paralytic ileus. The maximum clinical benefits can be obtained only by giving morphin in sufficient dosage to produce continuous narcosis. By maintaining the tone and rhythmic contractions of the small intestine with morphin, distention is controlled and disturbance of the bowel circulation is prevented during the course of the disease until the cause of the bowel distention is overcome by the natural defensive powers of the patient."

These concepts being true, the use of morphin is logical in peritonitis, paralytic ileus

Year	Race		Sex		Results			
	Black	White	Male	Female	Recovered	Died	Total	Mortality
1923	51	5	34	22	22	34	56	60.70%
1924	30	3	23	10	15	18	33	54.54%
1925	37	10	31	16	23	24	47	51.08%
1926	29	9	25	13	15	23	38	60.50%
1927	39	12	30	21	27	26	53	49.05%
1928	53	10	38	25	31	32	32	50.79%
1929	55	12	48	19	36	31	67	46.26%
1930	47	10	35	22	31	36	57	45.60%
1931	59	18	56	21	42	35	77	45.32%
1932	70	20	62	28	43	47	90	52.22%
Totals	470	109	382	197	285	296	581	50.94%

Chart IV—Shows a survey of 581 cases of acute intestinal obstruction in the Memphis General Hospital during the 10-year period, from 1923 to 1933 inclusive, by one of our attending staff, Dr. Morton J. Tendler. The mortality rate is 50.94 per cent—as good or as bad as that of most of the larger clinics for the same period.

and bowel obstruction to prevent overdistention; so its action is synergistic with suction siphonage and enterostomy in maintaining continuous decompression and preventing structural changes in the intestinal wall. In addition to this action on the bowel, morphin relieves pain, restlessness, apprehension and the discomfort of thirst, thereby conserving the patient's strength and preventing exhaustion of the kinetic system.

We took up this clinical problem in March 1934 after a survey of 581 cases of acute intestinal obstruction in The John Gaston Hospital during the 10-year period, from 1923 to 1933 inclusive, by one of our attending staff, Dr. Morton J. Tendler. The mortality rate was found to be 50.94 per cent—as good or as bad as that of most of the larger clinics for the same period.

I submit for your consideration (Slide No. 5) the following routine orders in force in the Department of General Surgery at The John Gaston Hospital, effective since March 1934, which embody the ideas expressed in this paper:

I. ON ADMISSION:

(1) Complete history, including—
 Immediate as well as remote onsets
 Purgations, specific drugs and number
 Sedation, specific drugs and number
 Previous operations, complications and sequelae
 Type of vomiting and frequency

(2) Complete physical examination, including—
 Blood-pressure immediately upon admission
 Distention, grades 0, 1, 2, 3 or 4
 Visible peristalsis; borborygmus; metallic tinkle
 Visible or palpable mass

(3) Flat x-ray plate of abdomen
 To go to x-ray room directly from the emergency room for possible localization and record

(4) Blood determinations
 Complete R. B. C., W. B. C., Hgb., differential count, blood chlorides, N. P. N. and CO_2—STAT.

(5) Impression—clinical diagnosis—consult Classification Chart

(6) Institution of suction-siphonage (Wangensteen)

(7) Administration of Morphin

(8) To operating room—if operable

II. IF NOT OPERABLE UPON ADMISSION:

(1) Routine exactly as above outlined

(2) Institution of venoclysis of saline-glucose sol. (5% in normal saline sol.)

(3) To operating room only when operability is optimum

III. OPERATION:

(1) Anesthetic—spinal—when no contra-indication exists; otherwise local and nitrous oxide or local alone

(2) Coeliotomy—exploratory for determina-

Types	Recovered		Deaths	
Mechanical	None		None	
			1 case	Mesenteric Thrombosis — 8 Hours
	2 cases	Strangulated Inguinal Hernia—48 and 12 hours	2 cases	Strangulated Hernia 24 and 48 Hours. Non-viable—Exteriorization
Vascular	1 case	Intussusception—30 hours		
	1 case	Volvulus—60 hours		
			1 case	Intussusception—5 Days
			1 case	5 Yrs. — Admitted with Acute Appendicitis 72 Hrs. Lived 31 Days
Ileus	1 case	48 hrs. Post Appendectomy Op. S. S.: R. T.—4 Days	1 case	13 Mos. Ileus After Umbilical Herniotomy. No. S. S. R. T.
Adhesive	22 cases	Post Op. Adhesions	10 cases	Post Op. Adhesions
			2 cases	Congenital Adhesions
Undetermined	4 cases		2 cases	
Totals	31 cases		20 cases	

Chart 6.—Showing the results in 51 cases during the year 1934 with a mortality rate of 39 per cent.

tion of type where not detrimental

(3) Enterostomy—(Witzel Technic) in lower third obstructions as near as possible to obstructing point

(4) Strangulations—if viable — mechanical relief and enterostomy
If not viable—exteriorization and enterostomy

IV. POSTOPERATIVE CARE:

(1) Continuous suction-siphonage (Wangensteen)

(2) Venoclysis—saline-glucose solution (5% glucose in normal saline)
4000 to 5000 cc. every 24 hours
(Blood chlorides to be checked daily)

(3) Urinary volume determination daily

(4) Morphin, Qs. Q4 hours for a period to be determined by the exigencies of the case

Under this plan of management we present the results in the treatment of 195 cases at The John Gaston Hospital during the past three years (March 1934 to March 1937). The mortality rate is 36.8 per cent, comparing very favorably with our past 10 years' statistics.

Type	Recoveries	Deaths
Mechanical—6	4	2
Vascular—39	31	8
Strangulated Hernia (34)	(30)	(4)
Volvulus (2)		(2)
Intussusception (2)	(1)	(1)
Mes-Thrombosis (1)		(1)
Adhesive—45	28	17
Post-Operative (23)	(16)	(7)
Inflammatory (20)	(10)	(20)
Terminal Ileitis (1)	(1)	
Tuberculous Peritonitis (1)	(1)	
Paralytic Ileus—4	3	1
Undetermined—3	0	3
Totals—97	66	31

Two Years 148 Cases—Mortality Rate 35.4%

Chart 7.—Showing the results in 97 cases during the year 1935-36 with a mortality rate of 31.9 per cent.

THE JOHN GASTON HOSPITAL
ACUTE INTESTINAL OBSTRUCTION
March, 1936 — March, 1937

NUMBER OF CASES

Recoveries	27
Deaths	20
Total	47

Total Mortality Rate 42.5%

	Recoveries	Deaths
Cases operated upon	18	11
Cases not operated upon	9	9
Total	27	20

ELAPSED TIME

	Recoveries	Deaths
4 or more days	6	17
3 days	5	0
2 days	8	2
1 day or less	8	1

Shortest Time 2 hours

Longest Time 12 days

Average time

CLINICAL CLASSIFICATION

Type	No.		Recoveries	Deaths
1. Mechanical	1			
2. Vascular	9			
		Strangulated Hernia	2	2
		Intussusception	1	2
		Volvulus	1	
		Mesenteric Thrombosis		1
3. Adhesive	28			
		Postoperative	11	4
		Inflammatory	10	3
4. Paralytic Ileus	0			
5. Undetermined	9	Total	27	20

Chart 8.—Showing the results in 47 cases during the year 1936-37 with a mortality rate of 42.5 per cent.

THE JOHN GASTON HOSPITAL
ACUTE INTESTINAL OBSTRUCTION
March, 1936 — March, 1937

ANALYSIS OF LATE CASES
(Elapsed time of 4 or more days)

23 Cases 17 Deaths 6 Recoveries

Deaths		Recoveries	
2 cases	12 days	1 case	7 days
2 cases	8 days	1 case	6 days
2 cases	7 days	4 cases	4 days
3 cases	6 days		
2 cases	5 days		
6 cases	4 days		
17 cases		6 cases	

Mortality Rate of Late Cases—73.9%

Corrected Mortality Rate 1936-37 (Deaths-Moribund Cases Deducted)	10%
Total Number of Cases	30
Recoveries	27
Deaths	3
Mortality Rate	10%

Chart 9.—Showing analysis of late cases in 1936-37 series, illustrating in a very positive manner the effects of delay.

THE JOHN GASTON HOSPITAL
ACUTE INTESTINAL OBSTRUCTION
March, 1934 — March, 1937
(3 years)

Number of Cases	195
Deaths	71
Recoveries	124
Mortality Rate	36.8%
Elapsed Time—Recoveries	48 hours
Elapsed Time—Deaths	91 hours

Chart 10.—Showing the cases over a period of three years.

We think it fair to state these statistics are compiled from the services of some sixteen attending surgeons, assisted by a house staff, working in a general charity hospital whose clientele is from the lowest social strata. It is also fair to state that during the pursuit of this clinical problem there were varying degrees of enthusiasm and surgical acumen exhibited. We believe, however, that these statistics show fairly accurately the result of the application of these principles in the hands of the average surgeon.

PRIVATE SERIES
ACUTE INTESTINAL OBSTRUCTION
March, 1934—March, 1937

NUMBER OF CASES

Recovered	34
Deaths	1
Total	35

Total mortality rate 2.8%

	Recoveries	Deaths
Cases operated upon	23	1
Cases not operated upon	11	0
Total	34	1

ELAPSED TIME

	Recoveries	Deaths
4 or more days	0	1
3 days	4	0
2 days	7	0
1 day or less	23	0
Shortest time	1 hour	
Longest time	72 hours	7 days
Average time	27 hours	7 days

CLINICAL CLASSIFICATION

TYPE	NO.	Recoveries	Deaths
Mechanical	0	0	0

Vascular	4	4	0
Ileus	11	11	0
Adhesive	20	19	1
Undetermined	0	0	0
Total	35	34	1

Chart 11—Showing a small series of 35 private cases during the years 1934-37 with a mortality rate of 2.8 percent.

This low mortality rate is the result of several factors, namely, a more intelligent clientele seeking relief earlier—hence, an earlier diagnosis; secondly, the prompt application of a therapy in harmony with present day knowledge of the disturbed physiology by a small group willing to apply with meticulous care the principles outlined in this paper.

SUMMARY

This paper consists of a consideration of the problem of acute intestinal obstruction from the standpoint of its early diagnosis, a more simplified classification and its altered physiology. In accordance with these concepts, an outline of the treatment of the condition is presented which has been followed by the author and his associates at The Gaston Hospital and by the author in his private practice since 1934. Statistics are presented of 581 cases at The John Gaston Hospital from the years 1923 to 1933 inclusive and compared with statistics of 195 cases at the same institution and 35 cases in private practice, during the years 1934-1937. The mortality rates of the latter two groups are 36.8 per cent and 2.8 per cent respectively, which two figures are encouraging and appear to be due to the institution of a therapy more in keeping with the pathology.

REFERENCES

1. Miller, C. J.: Study of 348 Surgical Cases of Acute Intestinal Obstruction. Ann. Surg., 1929, 89:91.
2. Haggard, William D.: Acute Intestinal Obstruction. J.A.M.A., May 5, 1928.
3. Wangensteen, Owen H., and Paine, John R.: Treatment of Acute Intestinal Obstruction by Suction with the Duodenal Tube. J.A.M.A., Nov. 11, 1933.
4. Bartlett, Willard, Jr.: The Changing Attitude Toward Ileus. S.G.&O., Nov., 1933; v. 57.
5. Cannon, W. B., and Murphy, F. T.: J.A.M.A. 840, XLVIII.
6. Stone, H. B., Bernheim, B. M., and Whipple, C. H.: Johns Hopkins Hosp. Bul. 1912, XXIII, 159.
7. Hayden, R. L. and Orr, Thos. G.: J. Exper. Med., 1923, XXXVII, 365; 1923 XXXVIII, 55.
8. Gatch, W. D., Trusler, H. M., and Ayres, N. D.: Am. J. Med. Sc., 1927, CLXXIII, 649.
9. Burgess, J. P., Walsh, E. L., and Ivy, A. C.: Proc. Soc. Exper., Biol. & Med., 1927, XXV, 105.
10. Paine, John R., and Wangensteen, Owen H.: The Necessity for Constant Suction to Inlying Nasal Tubes for Effectual Decompression Drainage of Upper Gastro-Intestinal Tract. S.G.&O., v. 57, Oct., 1933.
11. Orr, Thos. G.: The Action of Morphin on the Small Intestine and Its Clinical Application in the Treatment of Peritonitis and Intestinal Obstruction. Ann. Surg., v. 98, p. 835, Nov., 1933.

Reconstructive Surgery, With Special Reference to the Face

WILLIAM MILTON ADAMS, M.D.*
MEMPHIS, TENN.

PLASTIC surgery of the face is one of the oldest of the surgical arts, yet, generally speaking, it is one of the newest. That it is one of the oldest is not surprising. An appreciation of beauty is instinctive in the human race, and its highest expression is perfection of physical form. That it is one of the newest is explained by the fact that, prior to the World War, repair or correction of facial defects and deformities was performed by only a small number of reputable, especially trained surgeons, both in America and abroad, and, although many of the principles employed were by no means new, the technics were undeveloped and the number of failures of many procedures was excessive. Further, the field of practice was limited. The individual who sought correction of a facial disfigurement was usually looked upon with little sympathy and even with some amusement. Today, the situation is altogether different. Gillies has aptly called plastic surgery the "Cinderella of surgery."

The war, with its thousands of maimed, served as a tremendous impetus to plastic operations of all types, particularly of the face. Since the war, moreover, industrial and automobile traffic injuries have been responsible for an ever-growing demand for repair of accidental wounds and defects. As a consequence, an increasing number of surgeons have interested themselves in this phase of surgery, technics have been constantly improved in the various procedures involved, and plastic surgery is now beginning to be accorded a place of distinction among the other medical and surgical sciences.

This is as it should be. As Sir Frederick Treves has said, "No branch of operative surgery demands more ingenuity, more patience, more forethought, or more attention to detail." Every case is a distinct problem, necessitating careful study, a discrimination as to the choice of operation and whether correction should be attempted in one or more stages, and a vision of the ultimate result which may be expected.

Plastic surgery as a whole is devoted to the reconstruction of congenital and acquired defects and malformations of every part of the body, the restoration of function and improvement of appearance. Among the defects of the neck, trunk, and extremities encountered by the plastic surgeon are wounds, scars, keloids, ulcers, x-ray burns, hemangiomata, excessively enlarged breasts, torticollis, contractures, supernumerary digits, hypospadias and epispadias, and atresia of the vagina. The majority of disfigurements for which correction is sought, however, are those of the face, principally wounds, ulcers, destructions from malignancies, scars, harelip, cleft palate, deformities of the nose, ptosis of the eyelids, paralytic distortion, protruding ears, receding or protruding chin, and hairy moles and skin discolorations. Often, a single individual may have several of these defects, requiring correction.

Obviously, conspicuous facial disfigurements interfere with the patient's opportunities to earn a livelihood, and in many instances this is the sole reason for their seeking operation. Not frequently, however, they have a definite psychologic effect, causing the individual to develop an obsession and to withdraw from all outside contacts. In extreme instances, they may be responsible for the development of decided twists of character. To preclude this eventuality, reconstruction operations should be performed as early in childhood as is consistent with proper growth and function.

The surgeon's prime requisite for the repair of these defects is a familiarity with the methods and principles of transplantation of skin, fat, fascia, bone, cartilage, mucous membrane, and nerves.

---

*From the Department of Plastic Surgery, University of Tennessee, Memphis, Tenn.

Transplantation of skin may be accomplished by either grafts or flaps. For this purpose, one should select skin from an area which corresponds as nearly as possible in color, texture, and hair and gland bearing qualities to that of its intended site and which, if possible, is covered by the clothing.

A skin flap is a portion of skin which is undercut, being left attached at one end, and employed to cover a neighboring or distant defect. The attached part serves as a base for maintenance of the blood supply. When immediate transfer is desired, the flap is obtained from an area adjacent to its prospective site and is undercut and either advanced or rotated, as the situation may demand. For immediate repair of facial defects, flaps from the forehead or behind the ear are most suitable. Delaying the flap for several days, however, insures a better blood supply. When delay is feasible, the flap may be undercut and sewn back into place, or it may be undercut, left attached at both ends and tubed, later severed at the distal end, and the portion to be used swung into the defect.

Skin grafts, or sections of skin transplanted from one part of the body to another, may be small or large, and may consist of (1) the epidermal layers with a thin portion of the corium, (2) the epidermis with a thick portion of the corium, and (3) the entire thickness of the skin down to the subcutaneous tissue. Large thick split grafts or whole thickness grafts are now used in preference to the smaller types when possible.

Large thin grafts, called Ollier-Thiersch grafts, may be applied to fresh granulating surfaces and freshened scar surfaces which will resist subsequent contraction; on surfaces exposed to pressure or friction, they may not give sufficient protection to the underlying tissue and contraction may occur. The appearance of Ollier-Thiersch grafts almost precludes their use on the face, although they may be employed to line the orbit, mouth, antrum, and conjunctival sac. Mucous membrane grafts, however, are more suitable for use in these regions when obtainable.

Large grafts consisting of epidermis with a deep layer of corium are known as thick split grafts. They may be obtained without material damage to the donor area, the take is, as a rule, successful, good protection is secured, and the final appearance is satisfactory. These split grafts are not so durable as whole thickness grafts, and for this reason are less popular.

Whole thickness grafts are preferred by many surgeons for covering large denuded skin surfaces; they are especially useful for areas subject to constant pressure or friction, as over the hands or joints. Since they permit the greatest mobility, are least subject to retraction, give excellent protection, and an appearance which is most nearly natural, whole thickness grafts are particularly desirable for covering facial defects.

Before large grafts are applied, the granulated area should be removed down to normal tissue, a pressure mold applied over the raw surface, and the graft spread over the mold and applied with it to the denuded portion. It is then bandaged down and held with sufficient pressure to prevent the collection of serum or blood between graft and bed. Sea sponges, rubber sponges which have not been dyed, or a Ferris-Smith pressure bag may be used for this purpose. In the majority of cases, the entire area may be covered at one operation. The wound may be thoroughly healed within a week or ten days.

Fat grafts are used to fill depressions, to restore mobility in adherent scars, and to prevent adhesions and contractures. In cutting fatty grafts, one must dissect out a much larger portion than is necessary to fill the defect immediately, in order to allow for the tremendous shrinkage which the graft subsequently undergoes.

Fascia is transplanted free or with pedunculated flaps. It is valuable as a reinforcing tissue in weakened or defective areas, to immobilize joints, to construct tendons, in facial paralysis, and ptosis of the eyelids.

Bone grafts from the tibia or ribs, or from the scapula or sternum, may be transplanted to form a framework for the soft parts. The periosteum and, if possible, the endosteum, should be removed intact with the bone. These grafts are often indicated in reconstruction of the mandible. To insure the permanency of bone grafts, they must be placed in contact with living bone at each end.

Cartilage, preferably from the ribs, being flexible, readily cut and shaped, easily viable, and not subject to shrinkage, is the material of choice for supporting areas which do not bear weight. It is particularly suitable for rhinoplastic operations and for filling depressions about the face.

Areas wherein hair-bearing tissues will cause friction should be covered, when possible, by mucous membrane grafts. These may be taken from inside the lower lip, or occasionally from the vaginal orifice.

Nerve grafts are employed principally in the correction of facial paralysis. The Duel technic, by which the anterior femoris cutaneous nerve is transplanted, has proved most successful.

A large number of facial defects which come under the care of the plastic surgeon are either caused by scar contracture or are complicated by the presence of a scar. These may be not only disfiguring and painful, but may interfere with function. If the scar is deep and is attached to muscle or bone, it should be excised, if possible, or the attached portion should be completely released. The underlying soft parts should be brought together in layers to fill out the defect. If a depression remains, this may be filled by flaps or grafts of fat. When the scar is too extensive for excision, the principal binding points should be divided or excised down to normal tissue in order to break the continuity of the scar, and into these areas should be placed whole thickness skin grafts or pedunculated flaps.

Scars of long duration, which are unstable and break down from time to time, should be excised and replaced with healthy tissue, as they are prone to undergo carcinomatous changes. This is especially true of burn scars. Practically all x-ray burn scars break down within nine years, and the majority eventually become malignant.

Wounds of the face usually involve both the soft tissues and bony structures. Before suturing, the first step in reparative surgery is, of course, thorough cleansing of the wound with removal of all foreign bodies and blood clots, excision of loose particles of tissue and smoothing of rough surfaces, control of hemorrhage, and lavage with normal saline. If infection has developed, the wound should be sterilized frequently and treated by hot applications for a few days, or until one is reasonably sure that repair may be safely undertaken.

In Fig 1 is shown an extensive laceration of the lower lip and chin, with a compound comminuted fracture of the mandible. Both were repaired immediately after injury. A few spicules of bone were removed from the mandible during the healing process; otherwise, no further surgery was necessary.

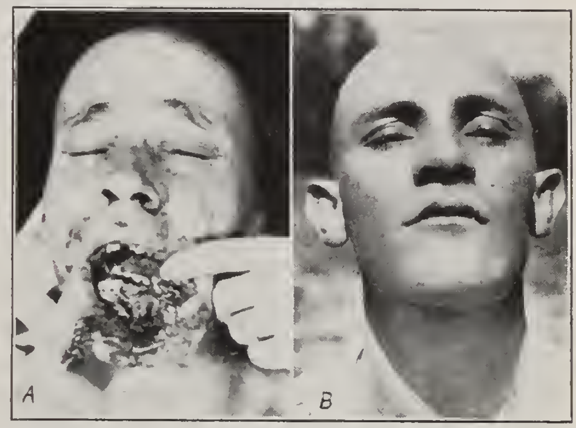


Fig. 1. "A"—An extensive laceration of the lower lip and chin, with a compound comminuted fracture of the mandible. A thorough debridement was done, the loose teeth extracted, the bony fragments wired together, and the soft tissues sutured.
"B"—Three months after injury. The patient has good function of the mandible. There is a slight depression on the left side of the chin, caused by a tube through which the wound was irrigated.

When fractures of the mandible accompany facial injuries, the fragments should be aligned for proper occlusion of the teeth and, when feasible, immobilized. If a compound comminuted fracture of the mandible is present, the fragments should be wired together, every effort being made to prevent deformity. Large losses of mucous membrane within the mouth must be replaced by epidermoid grafts.

Fractures of the maxilla should be reduced as early as possible. If the maxilla is not entirely detached from the skull, the broken fragments may be immobilized to the unfractured portion. When detachment from the skull bones is complete, the fragments can best be held in place by extra-oral splints secured to a plaster head cap. The hair should be shaved to prevent motion of the cap on the head. If the anterior wall of the antrum or infra-orbital arches are curved, these can usually be elevated through a small window in the nasal wall of the antrum under the inferior turbinate. When perfectly reduced, the bones will frequently remain in place; if they do not, the antrum should be packed with iodoform gauze for a few days. An associated nasal fracture should be reduced at the same time, and an external mold applied to the entire face. Nasal disfigurements are much more easily corrected at the time of fracture than later.

Acquired deformities of the nose are those occasioned by trauma, as automobile accidents, or by disease, as cancer or syphilis. Complete rhinoplasty is often necessary in these cases. Congenital nasal defects which the plastic surgeon is called upon to correct consist, in the main, of the hump and saddle back deformities. These types are observed in many variations, often in combination with defects in the size and shape of the tip, the alae, the columella, and the base of the nose.

Generally speaking, it is possible to make a nose practically any shape desired. This being true, there is no reason why anyone should go through life suffering embarassment on account of the shape of his nose. The doctor who is consulted in regard to a nasal deformity should never consider the patient's attitude lightly, even though the defect is not pronounced. The necessity for operation should be judged, not by the actual extent of the deformity, but by the proportions which it has assumed in the patient's mind. This fact should be borne in mind, whatever the location of the disfigurement.

Fig. 2 illustrates the reconstruction of a congenital hump nose with a large tip and broad base. Ever since her childhood, this patient had looked forward to having her nose straightened and its shape improved. The patient in Fig. 3 had a traumatic nasal deformity with a badly deviated septum. Correction was accomplished by a complete nasal reconstruction, including a submucous resection.

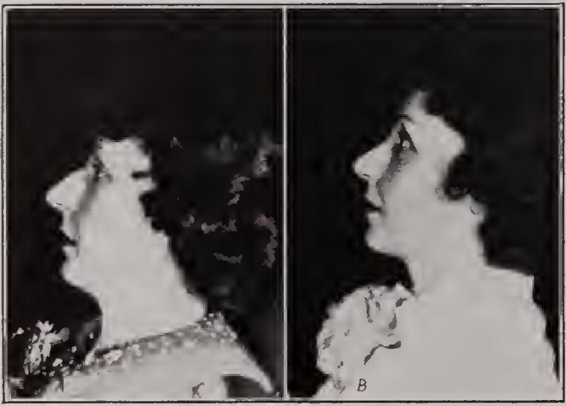


Fig. 2. "A"—Congenital hump nose with large tip and broad base.
"B"—The hump has been removed, the base narrowed, and the tip reduced in size.

Repair of harelip and cleft palate should be begun, preferably, early in infancy, either before or soon after the period of icterus neonatorum. When several operations are indicated, they should be completed before the child is two years old, that the best cosmetic result and speaking voice, and the greatest accuracy of speech may be obtained. The most opportune time for repair of a cleft palate is after the patient reaches the age of one year. The tissues grow with the body, however, and operations later in life may give excellent results, although clear speech may be acquired with greater difficulty.

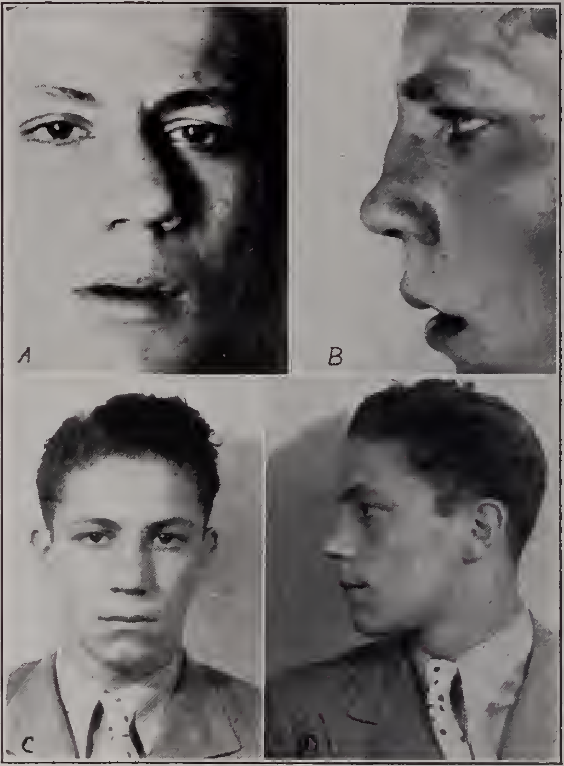


Fig. 3. "A" and "B"—Marked nasal deformity with badly deviated septum, the result of fracture on several occasions while the patient was playing football.
"C" and "D"—After complete nasal reconstruction, including submucous resection.

The procedures of closure must conform to the character of each portion of the cleft. Proper repair of harelip and cleft palate includes correction of the nasal deformity. Of the two, the nose presents the more difficult problem by far, and is the more often neglected.

Fig 4 shows the result of correction of a harelip and cleft palate in an adult. The defect had been ill repaired when the patient was a child.

Receding or protruding chin, when caused by deformity of the mandible, may be improved by an incision in the neck of the mandible just above the entrance of the inferior alveolar nerve and movement of the bone forward or backward, as required. If occlusion of the teeth is good, over-development of the chin may be corrected by excision of the symphysis, and under-development by building up the symphysis with a cartilage graft. Either of these procedures may be necessary, even though occlusion is obtained by shifting of the mandible. In practically every case, occlusion can be improved upon by the application of orthodontic appliances following surgical repair.

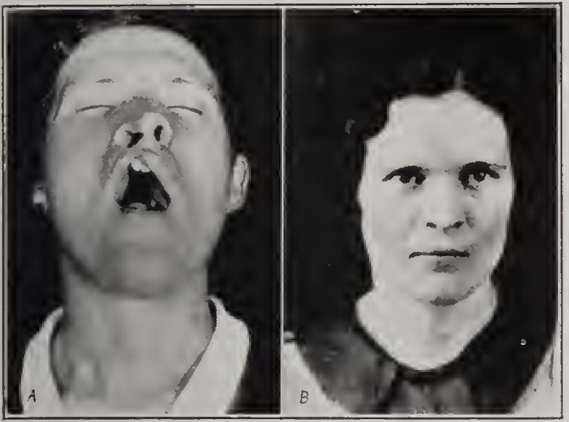


Fig. 4. "A"—A girl, twenty years of age, with a harelip and complete cleft palate which had been ill repaired during her childhood. Note the marked nasal deformity. The cleft is connected by only a band of scar tissue. The patient was forced to discontinue her studies at school on account of defective speech.
"B"—After reconstruction of the lip, nose, and cleft palate. The patient is now in training to become a nurse.

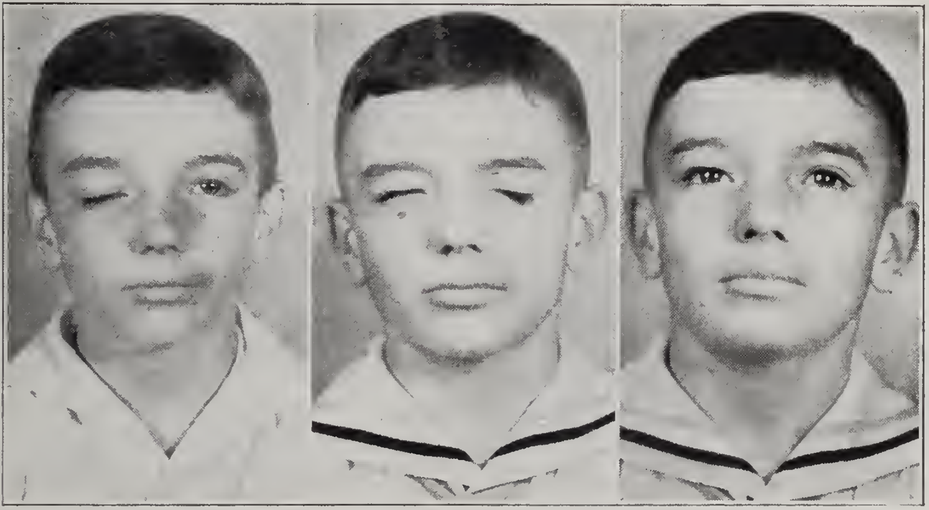


Fig. 5. "A"—Congenital ptosis of the right eyelid, complete. The patient gave a history of having had two operations previously in an attempt to obtain restoration of function in the lid.
"B"—Two weeks after operation. The patient can open and close the right eyelid. Correction made by suturing a wide pedicle of the frontalis muscle to the tarsus, then reanimating the frontalis muscle with a few of the median fibers of the superior rectus muscle.

Ptosis of the eyelids may be corrected by a variety of technics, depending upon the actual cause. In the majority of cases, correction is made either by taking a tuck in the levator palpebral muscle, when present, or by the Motais technic or one of its modifications. When there is a complete absence of the levator palpebral muscle and a weak superior rectus, fascia strips may be used, according to the method of Blair. Correction may also be made by swinging a heavy pedicle of the frontalis muscle down and attaching it to the tarsus, and inserting into the frontalis muscle a few of the median fibers of the superior rectus muscle. This reanimates the function of the frontalis muscle and gives the same result as the Motais operation, but does not utilize an amount of the superior rectus muscle sufficient to disturb vision or prevent the patient from sleeping with the eyes closed. The latter procedure was followed in Fig. 5. It has been four years since the operation, and the patient now has an even better result than is apparent in the photograph.

In facial paralysis, the Duel nerve graft should be employed when possible. If this is not successful nor practical, reanimation of the facial muscles with the temporalis muscle, according to Sheehan's method, is the proper procedure. Many patients, however, can be improved in appearance by suspension of the weak side of the face with fascia strips. This merely holds up the tissues; it does not restore function to the paralyzed side.

Hairy moles and deep port wine stains may be removed and replaced by skin flaps or pedicled grafts, depending upon their size and location.

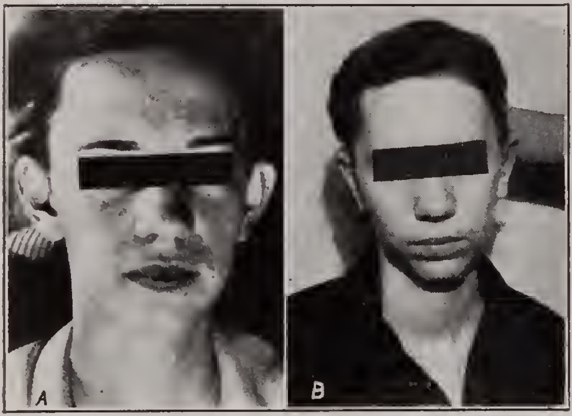


Fig. 6. "A"—Large protruding ears, before operation. "B"—After correction by excision of a segment of cartilage from the auricle and suturing the ear closer to the head.

The correction of protruding ears is one of the most gratifying procedures in plastic surgery. A sufficient amount of cartilage is removed from the auricle to reduce the ear to normal size and position; the ear may then be sutured close to the head. The technic suggested by John Staige Davis is the method of choice. In Fig. 6 is shown a case in point.

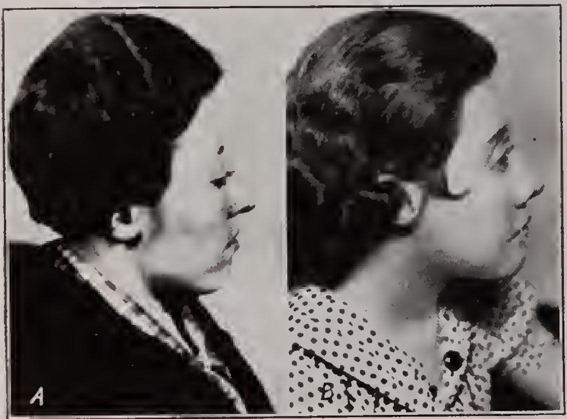


Fig. 7. "A"—After correction. The hump of the nose was removed and shifted upward to fill the depression in the globellar region. The cartilages of four ribs were carved out and, through small lateral incisions at the hairline of the temporal region on each side, these were placed together under the skin to build up the lower forehead and supra-obital ridges. Later through these same incisions, a large fatty fascia graft from the abdominal wall was inserted to build up the depression of the upper forehead.

In conclusion, a case is presented in Fig. 7 which illustrates the use of several types of grafts in one individual. The peculiar congenital deformity of the head and face gave the patient a mongolian appearance. To correct properly the deformity, bone was transplanted from the nose, cartilage from the ribs, and fat and fascia from the abdominal wall. The case also illustrates how one disfigurement exaggerates another, and how correction of the one makes the other less obvious. The large hump nose exaggerated the depression of the forehead; after removal of the hump and decreasing the size of the nose, the forehead appeared less depressed.

Especially interesting is the fact that this patient was a member of a family of seven, of whom all but two had this deformity. She was exceptionally bright, having been valedictorian of her class at graduation from high school. She had taken a business course and was efficient in this type of work, yet, despite her intelligence and ability, was unable to obtain employment except as a laborer in a shirt factory, or work of a similar nature. Strangely enough, she seemed not at all sensitive about her appearance, but appreciated the fact that it was a material handicap in her efforts to obtain work for which she was fitted.

BIBLIOGRAPHY

1. Blair, V. P.: Plastic Surgery of the Head, Face, and Neck; Psychic Reactions. J. Am. Dent. Assn., 23:236, 1936.
2. Davis, . S.: General Plastic Surgery. Ann. Surg., 77:257, 1923.
3. Davis, J. S., and Traut, H. F.: Plastic Surgery. Dean Lewis' Practice of Surgery, 5:3561. W. F. Prior Co., Hagerstown, Md.
4. Davis, W. B.: Harelip and Cleft Palate. Ann. Surg., 81:536, 1925.
5. Davis, W. B.· Congenital Deformities of the Face. Surg., Gynec., and Obst., 61:201, 1935.
6. Duel, A. B.: History and Development of the Surgical Treatment of Facial Palsy. Surg., Gynec., and Obst., 56:382, 1933.
7. Eitner, E.: Cosmetic Treatment of Scars of the Face. Wein. med. Wchnschr., 84:555, 1934.
8. Finesilver, E. M.. Nomenclature in Plastic Surgery. Am. J. Surg., 35:549, 1937.
9. Gillies, H. D.: Development and Scope of Plastic Surgery. Northwestern Univ. Bull., Medical School. 35:1, 1935.
10. Gillies, H. D.: Reconstruction Surgery—The Repair of Superficial Injuries. Surg., Gynec., and Obst., 60:559, 1935.
11. Ivy, R. H., and Curtis, L.: Fractures of the Jaws. Lea & Febiger, Philadelphia, 1931.
12. Kazanjian, V. H.: Traumatism of the Face and Jaws with Special Reference to Complications. J. Am. Dent. Assn., 21::1138, 1934.
13. Maliniak, J. W.: Sculpture in the Living. Romaine Pierson, Pub., New York, 1934.
14. New, G. B., and Figi, F. A.: Use of Reconstructive Surgery in Certain Types of Deformities of the Face. J. A. M. A., 103:1434, 1934.
15. Peer, L. A.: A Presentation of Cases Requiring Plastic Repair. J. Med. Soc. New Jersey, Jan., 1937.
16. Safian, J.: Corrective Rhinoplastic Surgery. American Journal of Surgery, New York, 1935.
17. Sheehan, J. E.: Reparative Surgery. Med. Rec., 139:647, 1934.
18. Sheehan, J. E.: Plastic Surgery of the Nose. Paul B. Hoeber, Inc., New York, 1936.
19. Smith, A. E.: Reconstructive Plastic and Oral Surgery. Calif. & West. Med., 42:432, 1935.
20. Updergraff, H. L., and Menninger, K. A.: Some Psychoanalytic Aspects of Plastic Surgery. Am. J. Surg., 25:554, 1934.

New Contributions To Obstetrics

WALTER A. RUCH, M.D.
MEMPHIS, TENN.

ON CASUAL thought, there appears to be little new in obstetrics, yet, after reviewing the literature, one finds it difficult to discuss the recent contributions to this branch of medical science in brief abstract.

In the field of drugs and pharmaceuticals, particularly, some worth while discoveries have been made. Of the many new drugs placed on the market, several have added materially to obstetrical practice.

The sulfanilimide compounds[1, 2] undoubtedly have attracted the most attention and provoked the most discussion. Prontosil has definitely found a place in the treatment of selected cases of puerperal infection. It has been a welcome addition to the pharmacopoeia of the obstetrician, since previously small and frequent blood transfusions were the only treatment of real avail. The sister drug, prontylin, has likewise proved valuable in the treatment of postpartum pyelitis when the offending organisms were the B. proteins, staphylococcus, colon, and aerogenes bacteria.

Another new and useful therapeutic agent in postpartum pyelitis is mandelic acid[3]. This form of therapy is rapidly replacing ketogenic diets. Although successfully rendering the urine sterile, neither of these diets is easily followed; in the one, the excess of fats is difficult to digest, and in the other, the deficiency of calories leads to loss of weight. In contrast, the administration of mandelic acid, which is given in combination with ammonium chloride, is comparatively simple and patients will readily cooperate in carrying out the treatment.

By this method, the pH of the urine is maintained at 5.5, the amount of sodium chloride being varied according to the response of the patient. Fluids must be limited to prevent too great dilution of the mandelic acid salts in the urine. The treatment is continued intermittently until repeated cultures have proved the urine free of pyogenic organisms. This therapy is not advocated as a remedy for antepartum pyelitis.

One of the most important events in obstetrical practice during recent years is the isolation of the active principle of ergot[4]. The action of fluid extract of ergot had become so unreliable that the majority of obstetricians had abandoned its use. The new drug, which is variously known as ergotamine, ergonovine, ergometrine, ergostetrine, ergotocin, and, more correctly, ergobasine, has been found very effective, and the fact that it can be administere dintravenously makes it almost a life saver in severe postpartum hemorrhage. The drug is especially useful in the presence of severe anemia, when it is advisable to reduce blood loss postpartum to a minimum, or when the patient gives a history of excessive bleeding during previous deliveries.

Wheat germ oil[5], employed prophylactically and therapeutically, has given satisfactory results in the treatment of abruptio placentae. A deficiency of vitamin E in the blood serum (or excess of estrogenic substance) is an indication for its use.

Toxemia of pregnancy has always been in the spotlight of obstetrical literature, but little new has been offered recently on the subject. The etiology is still obscure. Classification into grades has been recommended in institutional study of the condition, although merely as an aid to earlier recognition[6]. The methods of treatment, which have swung with the pendulum from radical to conservative, have come to rest between the two extremes.

Calcium therapy, in combination with parathyroid extract has been found valuable, in a small series of cases, for the control of nausea from mild intoxication in pregnancy[7]. The studies were based on the theory that the liver damage in toxemia is accompanied by a disturbance of the normal action of the parathyroid gland, and the influence of this gland in maintaining a proper balance of calcium might not be operative. The combination of calcium and parathyroid extract, when these two substances could be supplied in amounts larger than usual, definitely shortened the duration of the early vomiting of pregnancy.

Suprarenal cortex therapy has been efficacious in the control of stubborn cases of nausea and vomiting[8]. Oral administration of the tablet form of the drug is prescribed for mild nausea and vomiting, whereas the more extreme symptoms are treated by intravenous or intramuscular injection. This treatment is resorted to only after the usual remedies have failed to give relief.

Calcium therapy has enjoyed such a wide vogue during the past few years that many doctors have been inclined to prescribe the drug in excess. Several authors have lately published articles in which they showed that this type of treatment resulted in osteosclerosis of the fetal bones[9]. The increased density of the parietal bones was held responsible for dystocia in labor.

The problem of analgesia has long provoked much discussion. For primiparas, scopolamine and morphine are widely used during labor; there is little difference in the effect of the more popular analgesics on multiparas. Dilaudid-scopolamine, a substitute for scopolamine with morphine, may be given with equal success to both primiparas and multiparas. The author has found this drug safe and dependable.

Paraldehyde[10,11], one of the newest of the tried analgesics, may also be given to primiparas and multiparas alike. Administered orally, in combination with one of the barbiturates, it has been a successful, simple, and rapidly effective agents for the relief of pain in labor, giving a prolonged amnesia without deleterious effect on mother or infant.

Acid alurate in ether oil[12], given rectally, has been recommended as an analgesic on the basis that it reduces excitement, shortens labor, and produces no serious nor permanent effect on mother or child. This technic has been used in a limited number of cases and is too new to warrant an opinion as to its merit. Its use outside institutions is not advised.

Another drug which has been found particularly successful in minimizing excitement is sigmodal[13]. The advocates of this analgesic state that it may safely be used by the practitioner in the home as well as in the hospital. Given rectally, it is harmless to mother and child.

Among the anesthetics, evipal[14] has been recommended for all manner of forceps deliveries. It confers swift anesthesia and early awakening, eliminates post-anesthesia complications, and spares the child and the uterine musculature. Cyclopropane has advantages similar to those of evipal and, in the author's experience, has been used with gratifying success in breech deliveries, podalic versions, and caesarean sections. Ether and nitrous oxide, however, have waned little, if any, in popularity.

Roentgenograms of the bladder following the instillation of an opaque material, as sodium iodide or skiodan, has been employed as an adjunct to clinical diagnosis of placenta previa in cases of bleeding during the last trimester of pregnancy[15]. If a definite space of more than 1 cm. is shown between the head and bladder, particularly if accompanied by a marked bladder deformity, placenta previa may be suspected. If no appreciable space is shown and the contour of the bladder is normal, the diagnosis of placenta previa may be ruled out. The roentgenogram will save the necessity of a vaginal examination, which might entail immediate delivery on account of hemorrhage.

This procedure may also be employed to advantage when a Braxton Hicks or typical version is to be done; the head should be turned to that side on which the cystogram is fullest.

Injections of camphor in oil to inhibit or relieve engorgement of the breasts after delivery have given excellent results[16]. When administered within twenty-four hours, the condition will fail to develop in a large majority of cases. The earlier the injections are begun, the less the degree and duration of the engorgement.

New devices in equipment include forceps and instruments for registering blood loss and for pelvic measurement. Although perhaps of little practical value at present, the amplifying stethoscope[17], for continuous auscultation of the fetal heart, will, no doubt, be well received when fully improved. The importance of continuous auscultation of the fetal heart during labor, and especially during delivery, cannot be questioned.

X-ray technics have been developed for pelvimetry[18], but have not yet been widely adopted.

Last, but by no means least, some progress has been made in the attempt to reduce maternal and fetal mortality. Postgraduate training has assisted materially in furthering this work, and the education of the public as to the need for prenatal care is having a beneficial effect. Fetal mortality cannot be reduced appreciably, however, until we learn more about the causes of death in the neonatal period, and this, in turn, cannot be understood until postmortem examinations are made and a uniform system of reporting is adopted[19].

BIBLIOGRAPHY

1. Long, P. H., and Bliss, E. A.: J. A. M. A., 108:32, 1937.
2. Foulis, M. A., and Barr, J. B.: Brit. Med. Jour., 1:445, 1937.
3. Traut, H. F.: Amer. Jour. Obstet. and Gynec., 34:392, 1937.
4. Tritsch, J. T., and Behm, K. H.: Amer. Jour. Obst. Gynec., 34:676, 1937.
5. Shute, E.: Amer. Jour. Obst. & Gynec., 33:429, 1937.
6. Kellogg. F. S., Smith, J. A., Teel, H. M., and Reid, D. E.: Amer, Jour. Obst. & Gynec., 33:300 1937.
7. Sussman, W.: Amer. Jour. Obst. & Gynec., 33:761, 1937.
8. Freeman, W., Melick, J. M., and McClusky, D. K.: Amer. Jour. Obst. & Gynec., 33:618, 1937.
9. Finola, G. C., Trump, R. A., and Grimson, M.: Amer. Jour. Obst. & Gynec., 34:955, 1937.
10. Douglass, L. H., and Peyton, F. W.: Amer. Jour. Obst. & Gynec., 33:604, 1937.
11. Moore, S. F., Jr., and McCurdy, R. A.: Amer. Jour. Obst. & Gynec., 32:97, 1936.
12. Ingraham, H. C., and Rosen, J. A.: Amer. Jour. Obst. & Gynec., 34:672, 1937.
13. Emmert, F. V., and Goldschmidt, S.: Jour. Missouri M. A., 33:378, 1936.
14. Kassebohm, F. A., and Schreiber, M. J.: Amer. Jour. Surg., 31:265, 1936.
15. Hall, S. C., Currin, F. W., and Lynch, J.F.: Amer. Jour. Obst. & Gynec., 33:625, 1937.
16. Klein, M. D.: Amer. Jour. Obst. & Gynec., 31:894, 1936.
17. Matthews, H. B.: Amer. Jour. Obst. and Gynec., 34:898, 1937.
18. Thomas, H.: Amer. Obst. & Gynec., 34:150, 1937.
19. Editorial, Amer. Jour. Obst. & Gynec., 34:1049, 1937.

The Use of X-Ray In Chest Examinations by the Physician in General Practice

J. CASH KING, M.D.*
MEMPHIS, TENN.

THE VALUE of the x-ray in the diagnosis of lesions within the chest cavity is well established. Even the most skilled specialist in chest diseases now considers an examination incomplete without properly made roentgenologic studies. Today, the services of a competent roentgenologist may be obtained with little difficulty, and the well informed, conscientious surgeon, internist, or general practitioner no longer attempts treatment based upon a diagnosis made from physical signs alone.

To those living in cities and larger towns, the problem of securing reliable roentgenologic examinations and opinions is comparatively simple, since a trained roentgenologist with adequate equipment may be found immediately available. The doctor in the smaller town will find it advantageous in many cases to provide himself with necessary x-ray equipment, have the roentgenograms made in his office, and mail them to some accredited roentgenologist for interpretation. By this means, his patients will be afforded the benefit of x-ray examination and diagnosis, and he a guide to treatment.

As was stated in a previous paper, the physician who contemplates buying x-ray equipment should first decide for what purposes it shall be used, and then acquire only such equipment as will be needed for these purposes. Before making any purchases, it would be well worth his while to consult a roentgenologist, who would gladly lend his cooperation in this respect. There are, however, many physicians who have offices equipped with x-ray apparatus, yet use it to little advantage, if at all. Perhaps the roentgenograms are not clear as they should be. The defect may be caused by some mechanical maladjustment, or lack of an accessory, which may be remedied with small expense. Here, again, the advice of a roentgenologist or someone familiar with the proper use of x-ray equipment will be valuable. Moreover, it should not be forgotten that roentgenograms can best be made by an experienced technician. For this reason, it usually is advisable that the busy doctor have his nurse or assistant take a course of training in roentgenography, rather than assume the responsibility of making them himself.

The equipment required for making satisfactory radiographs of the chest is not extensive and may be purchased at moderate cost. Even smaller machines on the market at present have sufficient capacity to make accurate roentgenograms if the newer, fast screens and films are used. The importance of good intensifying screens cannot be overemphasized. A mechanical timer is also imperative; guess work has no place in the operation of x-ray equipment.

Since the lungs contain principally air, they lend themselves well to study by roentgen-rays. The air containing tissue permits the rays to pass through with little resistance, causing the film to be dark in proportion to the amount of air in the tissues. In a normal, well aerated chest, only the bronchi and blood vessels cast white or gray shadows over the otherwise homogeneous dark lung field. One can readily understand that replacement of the air containing tissues by the products of inflammation, as edema, cellular infiltration, or fibrin, will change the dark lung field to varying grades of whiteness by filtering out more of the x-rays, the degree of whiteness being in direct proportion to the thickness and density of the lesion producing the shadow. Interpretation of a film, therefore, is made by studying the comparative densities, the extent and arrangement of the whiter shadows which replace the normal dark lung field.

In the presence of fluid in the pleural

---

*From the Department of Roentgenology, University of Tennessee, Memphis, Tenn.

cavity, for example, we see a dense homogeneous whiteness with a comparatively distinct outer contour. In early stages of pleural effusion, the white area is more pronounced at the dependent parts, or the periphery of the bases; in advanced stages, the fluid may replace the entire lung tissue on one side, deflecting the mediastinal structures to the opposite side.

When there is infiltration into the lung tissue, such as is produced by tuberculous pneumonia, mottled shadows of less intensity of whiteness, with very irregular and indefinite edges, are observed in the midportion of the lung, the primary lesion generally being located midway between the hilum and the lateral periphery of the apex. Tubercles and conglomerate tubercles always give the shadow of the infected area a coarse, granular appearance, resembling flakes of snow. Figure 1 shows a case of miliary tuberculosis which illustrates well the granular shadow of miliary lesions. At the pneumonic portion the granules are thicker, as in a solid layer of snow, while the surrounding scattered tubercles are similar to individual snow flakes, blown, so to speak, from the main drift. This last mentioned feature differentiates tuberculous pneumonia from non-tuberculous. Pneumococcic pneumonia produces a far more homogeneous shadow without the characteristic granules.

The extent of both these lesions is dependent, of course, upon the type. In lobar pneumonia, the disease is confined to one lobe, but if the causative organism is tuberculous, we soon have an extension to other portions of the lung on the afflicted side and perhaps to the opposite side. In bronchial pneumonia, parts of two or more lobes may be infiltrated, producing small, poorly defined white areas.

A brief description of the outstanding roentgenographic features which one must consider in interpreting shadows produced by the more common pulmonary infections is given below.

Pneumonia.—Acute bacterial infection of the parenchyma of the lung, which is known as pneumonia, may be lobar, lobular, or bronchopneumonic. The virulence of the organism probably has some influence on the distribution. During the first twenty-four hours, no definite consolidation may be visible in the film, yet by the end of the second twenty-four hours an entire lobe may be radiopaque. On account of the nature of the disease, few of these patients require roentgenographic examination for diagnosis; moreover, removal of the patient from bed for this purpose is a dangerous procedure.

In early stages of lobar pneumonia, the roentgenogram may demonstrate only a conical shaped shadow with its base at the periphery and its apex pointing toward the hilum. The cloudiness is homogeneous in appearance and is more distinct in the midportion, gradually shading into gray and then into the normal dark lung shadow.

In complete lobar consolidation of the right upper or right middle lobe, a rather sharp edge of demarcation is noted. (Fig. 1). When the pneumonia area is located in the lower lobe on either side, the upper border of consolidation does not have a sharp line of demarcation. This is also true of the lower border of the upper lobe of the left lung, and is due to the anatomic shape of the lobes. The diaphragm may be slightly elevated on the affected side, though there is little, if any, lateral shift in the position of the mediastinal structures.

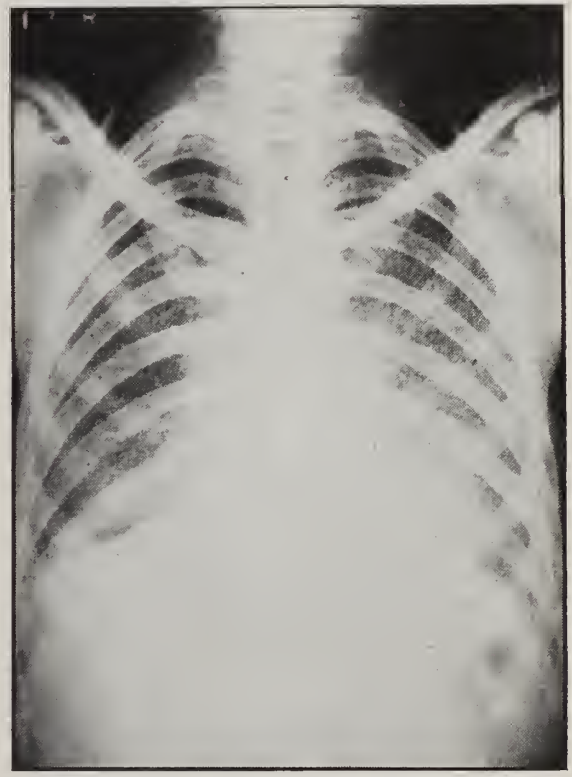


Fig. 1. Miliary tuberculosis of both lungs. Note granular shadow cast by tuberculous infection.

Tuberculosis.—Early tuberculous lesions are found, more often, in the upper lobes below or behind the clavicle (Fig. 2.). The white

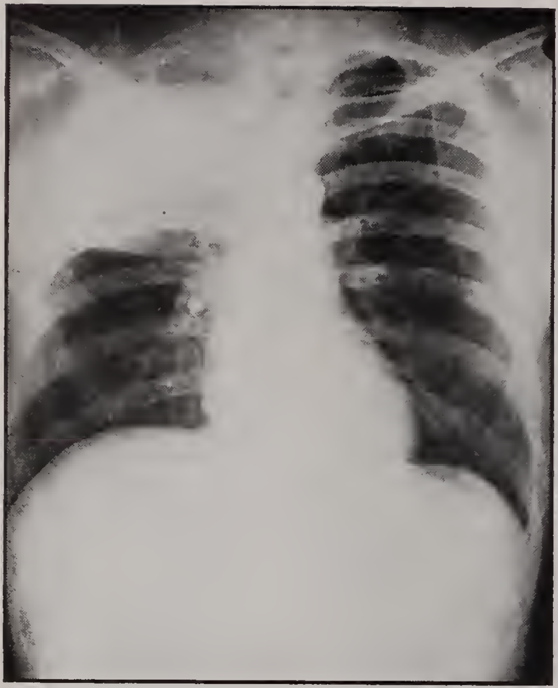


Fig. 2. Typical lobar pneumonia of upper lobe of right lung, with acute bronchitis of remaining lung tissue.

shadow caused by the lung infiltration simulates that produced by pneumonia; it is distinguishable, however, by its granular appearance and the fact that grayish white lines, caused by involvement of the lymphatics around the blood vessels and bronchi, extend from the area of cloudiness toward the hilum. There is, in addition, an enlargement of the lymph nodes at the hilum.

In advanced cases, the infection is more widely distributed and may be accompanied by the formation of a cavity in the center of the area of greatest infiltration. At this stage, the glands in the hilum of the opposite lung also may be enlarged.

In late cases we see a still further involvement of the originally infected lung, with perhaps a more extensive invasion of the opposite lung. Usually, by this time sufficient fibrosis has occurred to pull the mediastinal structures toward the side of the primary infection, as well as to cause thickening of the pleura, both visceral and parietal, on that side. As a rule, a small amount of fluid may be detected along the costophrenic angle.

Bronchitis.—Signs of inflammation of the bronchi are not infrequently observed in patients who are troubled with a persistent cold. The nasal accessory sinuses may also be infected. The characteristic roentgenographic feature of bronchitis is an increase in density of the bronchial shadows on both sides as they radiate from the hilum. This finding is always more pronounced at the bases. (Fig. 3).

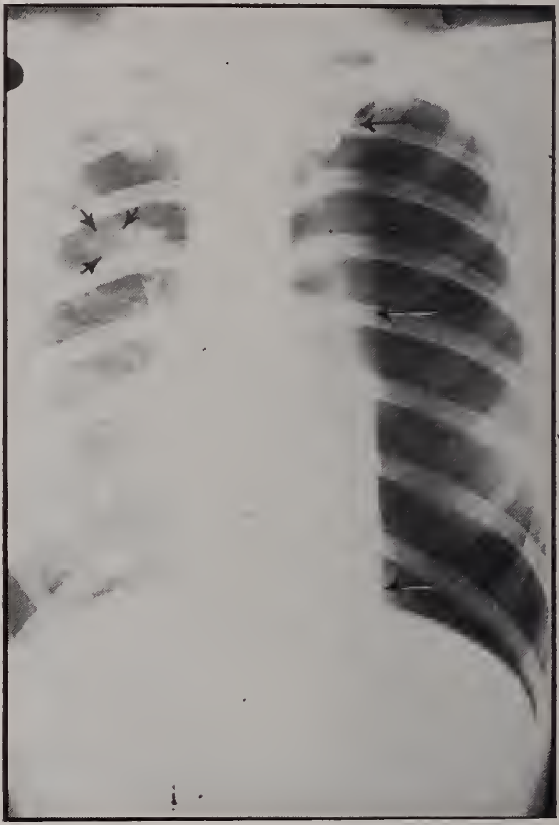


Fig. 3. Early pulmonary tuberculosis with involvement of a small area of parenchyma above right hilum. A spontaneous pneumothorax on left had collapsed the lung against the mediastinum; pleural adhesions at extreme apex and extreme base on this side prevented complete collapse. Arrows indicate edge of collapsed lung.

Bronchiectasis.—The changes observed in bronchiectasis are an exaggeration of those found in bronchitis, the bronchial markings being greatly intensified both in width and density. At times, the bronchial sacculations simulate small areas of pneumonic infiltration. The exact extent of the lesion may be demonstrated only on films made after the instillation of iodized oil into the bronchial tubes. In a large majority of cases, the pathologic process is confined to the lower lobe and is bilateral.

In the interpretation of roentgenograms, the shadows cast by the enlarged breast, muscles, and bony structures of the thorax must not be mistaken for disease within the lung. On first thought, this seems an unnecessary caution, yet these shadows have been sources of error in many cases. The thickness of a large, dependent breast may produce a white shadow over the base of the lung field which is much like that produced by fluid. In muscular men, the pectoral muscle shadows may make diagnosis difficult. But perhaps the most frequent error in diagnosis is caused by the confusion of the vertebral border of the scapula with thickening of the pleura.

The majority of such mistakes may be avoided if one bears in mind that these lines and shadows overlying the lung field, if followed to their termination, will be found to lead outside the chest cavity and thus can be easily identified as parts of extrapulmonary structures (Fig. 4).

It should be clearly understood that a roentgenologic examination of the chest does not in any way lessen the importance of a carefully taken history and a thorough physical examination of the chest. The roentgenographic characteristics of many chest diseases are remarkably similar, and a differential diagnosis can be made only by correlating these findings with the clinical record. Films sent by mail to the roentgenologist for interpretation should always be accompanied by a record of the history and physical findings.

By studying the reports and films together after the roentgenologist has made his diagnosis, the physician will not only have a better understanding of his patient's condition, but will himself soon acquire an increased knowledge of the interpretation of roentgenograms.

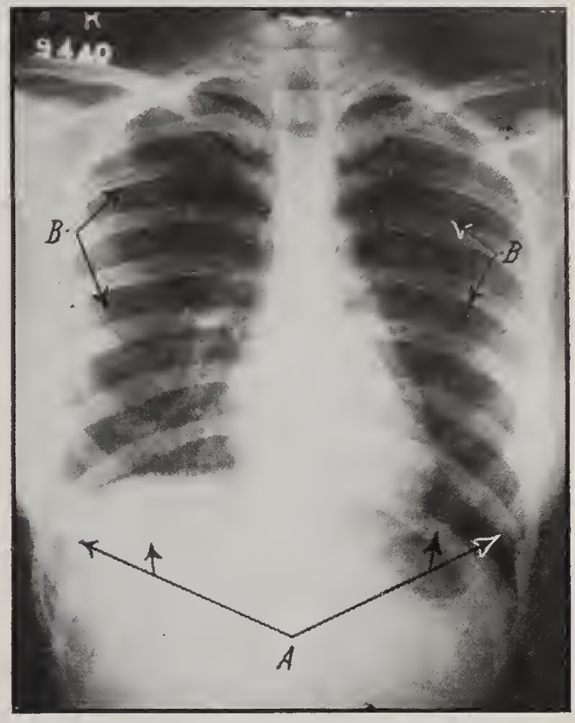


Fig. 4. Subacute bronchitis of bases of both lungs. (A) arrows point to vertebral border of scapula; (B) arrows show outline of breast; these structures occasionally are interpreted as representing intrapulmonary disease.

❧

Foreign Bodies in the Bladder

I. G. DUNCAN· B.S., M.D., F.A.C.S.*
MEMPHIS, TENN.

FOREIGN bodies are not infrequently found in the bladder. Sponges, instruments, catheters, pieces of rubber tubing, and other drainage material may be left in this viscus at the time of operation, or allowed to slip into it during the postoperative care. Buttons, pieces of bones, bark, and scraps of cloth have been introduced at the time of gunshot or stab wounds. Objects with sharp points or cutting edges, such as needles, pins, and bits of glass, having been swallowed by children or insane persons, have been recovered from the bladder. During attempts to bring on abortions, such objects as catheters, sponges, hat pins and knitting needles have been accidently introduced into the bladder. However, they are found most often in masturbators, the objects being put into the urethra for sexual gratification. Chewing gum seems to be quite a favorite with these unfortunate perverts.

A doctor friend of mine removed a long Johnson grass straw from a young man's bladder. Another case came on our service at the City Hospital with a hatpin sticking in his penis with the head in the patient's bladder. He had lost the pin at the time of orgasm, and the point had penetrated his urethra.

Sooner or later, these foreign bodies will produce a cystitis, and if allowed to remain, stones or bladder incrustations are sure to form. Shame usually keeps these unfortunate people from seeking medical relief, until driven to do so by the unbearable painful and frequent urination, chills, rigors, temperature, etc.

The diagnosis should not be difficult if a true history can be obtained. The urine will contain blood and pus, and the foreign body can be demonstrated by an x-ray or cystoscopic examination.

Treatment consists of removing the irritating substance, if possible through a cystoscope, otherwise by suprapubic cystotomy. Afterward, the accompanying cystitis must be treated, which is often very troublesome. If a complicating pyelitis should occur it is most satisfactorily treated by cystoscopic methods.

Before closing I wish to report two very interesting cases in more detail.

(1) Mr. A., male, white age 16, was admitted on my service at the Memphis General Hospital.

C. C. Frequent and painful urination, hematuria, chills and fever.

F. H. Negative.

P. H. Three weeks previously, being annoyed by some itching in his urethra, he decided to seek relief by scratching it with a piece of chewing gum. So, after chewing two sticks of gum, he rolled them into the shape of a pencil, about five inches in length. Passing this into his urethra, he found that the itching was not only relieved, but that he also liked the tickling sensation produced by the gum. After keeping this up for about ten minutes an ejaculation took place. He said at the time of the orgasm something seemed to snatch the chewing gum from his fingers up into his bladder.

For a time he told no one, but after a few days his dysuria, hematuria, etc., became so annoying that he reported to the clinic for relief, and was transferred to the Memphis General Hospital. After several unsuccessful attempts to relieve him by cystoscopic methods, a suprapubic cystotomy was done, and the gum fished out. A tube was inserted and the patient drained suprapubicly for about ten days. Following this he made an uneventful recovery and when last seen, he was planning to study medicine.

(2) Mr. B., age 58, white, entered hospital February 4, 1927.

C. C. Frequency and painful urination and marked dysuria.

P. H. Had gonorrhea twenty years ago. The infection was rather mild and he took very little treatment. However, ten years later he began to suffer with dysuria and it was found that a stricture had developed. It was dilated and he was relieved for about two years when the old trouble returned. He again consulted his physician, who experienced great difficulty in passing sounds. In fact, the treatment was so painful that he did not return as instructed for further treatment, but proceeded to dilate himself by means of a broom straw.

---

*Associate Professor Urology University of Tennessee College of Medicine, Memphis, Tenn.

He got along surprisingly well with this method of treatment until about ten months ago, when the straw broke off in his urethra. This was followed by such severe urinary disturbance that he became alarmed and went to the Memphis General Hospital.

As all attempts at passing instruments were unsuccessful, an external urethrotomy was performed, the mucous membrane being sutured to the skin, making a permanent opening. This is commonly called the gutter operation. He made an uneventful recovery and left the hospital after a few weeks.

However, it seemed that he could not prevent a few drops of urine getting on his clothes, which caused a rather disagreeable odor. As it was a lot of trouble to bathe and change his B.V.D.'s, he decided to deodorize himself, so he procured a 10cc specimen bottle, punched a small wire through the cork, and filled it with perfume. This he put in his drawers near the perineal opening. The perfume would flow out very slowly and the odor was thus disguised.

Present illness: February 2, 1937 he sallied forth with his trusty bottle in place filled with the nectar of wild flowers. But, when he returned home, and bethought himself to put his deodorizer away, the little bottle had disappeared, so, he bemoaned his loss and his heart was sad. However, his heart was not to grieve for long, as in a short time his bladder, whose sacred threshold had been passed by an unwelcome guest, joined in the lamentation and began to shed great blood stained tears at such frequent intervals that Mr. B, in sore distress, sought relief at the O. P. D., and was transferred immediately to the Memphis General Hospital.

This is the bottle removed from the man's bladder.

An x-ray and cystoscopic examination revealed the bottle in his bladder. Several unsuccessful attempts were made to remove it by cystoscopic methods; it being impossible to grasp the bottle with the forceps. So, it was recovered by a suprapubic cystotomy, the patient making an uneventful recovery.

There are some who have questioned the Biblical account of The Creation of the earth and all that is in it. Others have doubted the story of Noah and the Ark. There have been men who were not able to understand about the children in the fiery furnace, and quite a few have been skeptical about Jonah and the Whale. So, I doubt not that some will question my account of how the bottle got into the bladder. To these doubting Thomases, I wish to answer as did the little boy, when questioned about the story, told by Pharoah's daughter, of how she found the infant Moses in the bull-rushes, "That is what she said." So, gentlemen, this is what he said.

1500 Commerce Title Building.

◆

Head Injuries

R. E. SEMMES, M.D.*
MEMPHIS, TENN.

IN THE past few years injuries to the head have been advancing as a major cause of death.

Knowledge of the proper methods of handling these injuries is demanded of an increasing proportion of the medical profession.

Much has been written upon the subject, largely about the diffuse brain injuries and the relative merits of certain forms of treatment, such as lumbar puncture, dehydration and operative interference and principally by the enthusiastic advocates of one or other of these procedures.

The purposes of treatment are: First, to prevent death, and second, to prevent or limit brain damage and shorten the period of disability.

Head injuries can be much more clearly understood—just what is indicated, and when, in the way of therapy — by remembering that the mode of production determines the pathologic series which results from trauma involving the brain and its covering. The nature of the damage done to the scalp, skull, meninges and brain is strikingly similar and varies only in degree. Type I—When the head is struck by a relatively small, rapidly moving object, a hammer, pistol butt, monkey wrench, bottle or the flying heel of a mule. Type II—When the injury is caused by striking the head itself against a flat immovable surface, whether the ground, automobile or bridge head. Type III—When a glancing blow has struck the head, or a sliding fall upon the head is sustained.

Type I—When the head is struck by a tool or weapon, the scalp is mashed apart at the point of impact, causing an open wound. The skull is bent in until it breaks (inwardly) causing a depressed, stellate, "egg-shell" fracture. The meninges are punctured or torn by the sharp fragments and the brain is lacerated or contused, **but only local damage is done the brain.** Therefore, consciousness is lost momentarily if at all, and unless an important cortical center happens to have been struck, no neurological signs are evident. There is seldom enough encroachment upon the cranial cavity or enough brain area involved in swelling to cause a serious rise in intracranial pressure. Hemorrhage is seldom the result of this type of injury, since the scalp vessels are crushed and the inbent bone compresses the vessels of the meninges and cortex —until disturbed at operation. In fact, most patients with depressed fractures of the skull enter the hospital mentally clear, cooperative and in no distress. Shock is rare.

Treatment in this type of injury offers relatively little difficulty. The mortality is exceedingly low, infection rare, disability short and even cosmetic results good. Thorough debridement of the contaminated wound, skull edges and pulped brain under local anesthetic with repair by suture of the dura, replacement of the bone fragments to fill the cranial defect, **without drainage** of the scalp wound, is indicated. In other words, the treatment is surgical, largely mechanical and should be carried out within twelve hours or at the most, twenty-four hours.

Type II—When the head is struck violently against a flat resistant surface, such as the pavement, the scalp is mashed, the skull flattens until it cracks (outwardly), and a bursting, linea fracture and usually a tear of the dura results. And of the greatest importance, the semi-solid brain suffers a universal shake-up or contusion or even laceration. This is greatest at the point of impact and at the opposite pole, but diffuse throughout the substance of the brain. Consciousness is suspended—first, from concussion and later from disorganization or edema and anoxia. The function of the various parts of the brain is disturbed in varying degree. Shock is produced from involvement of the brain stem—or associated injuries. Pathological physiology is in evidence in changing blood pressure, respiration and pulse rates and thermal disturbance, etc. In these patients the damage to the scalp and skull requires no consideration or treatment. The crack in the skull or torn dura may even be of benefit, providing room for the swelling brain. X-ray examination is of little value—except in medicolegal cases. The main concern is to combat shock, manage the disturbed physiology and limit or relieve compression. Obviously nothing can be done for the damaged brain cells and broken fiber tracts and contusion of the brain substance.

---

*From the Department of Neuro-surgery, University of Tennessee, Memphis, Tenn.

The treatment of shock consists of rest, heat and fluids—especially fifty per cent sucrose or sorbitol solution and the **avoidance of opiates,** since these depress the respiratory centers and increase intracranial pressure.

Cyanosis requires turning the patient far on his side and lowering the head when postoral drainage of secretions in the throat and trachea is needed. Snoring or stertorous breathing means obstruction. It must be remembered that anoxemia means not only depressed brain function, but it causes edema and increases intracranial pressure which in turn calls for an increase in blood pressure favoring hemorrhage. Oxygen and carbondioxide administration comes third in relieving respiratory inadequacy and the usual respiratory stimulants are almost useless.

In this type of injury the whole brain is involved in swelling. The increase in brain volume is first at the expense of blood volume in the cerebral vessels and then at the expense of fluid volume, provided the latter can escape or be absorbed. The intracranial pressure rises. Stupor, slowed pulse and respiratory rate, rising blood pressure, falling temperature and engorged retinal veins are the evidence of cerebral compression and compensatory response. But unconsciousness, restlessness, rising temperature, pulse and respiratory rates and paralysis, present immediately after injury, are not signs of compression.

The means of lowering intracranial pressure are: elevation of the head, limitation of fluids, hypertonic solutions by vein and saturated magnesium sulphate solution by stomach or rectum. Magnesium sulphate given subcutaneously or intravenously cannot be given in sufficient quantities to cause appreciable dehydration without danger of respiratory depression. However, magnesium sulphate has some colloidal chemical effect in preventing edema, even when given in small doses.

Lumbar puncture reduces the intracranial pressure, temporarily, when free fluid is present in the basal cisterns and ventricles, and has not been withdrawn by dehydration, leakage or previous puncture. Theoretically, the fluid is replaced by blood in cerebral circulation and improves function and reduces edema. Unfortunately, however, only the veins may fill, slowing circulation, or more fluid may be quickly secreted. It must be remembered that lumbar puncture may do harm, by favoring a herniation of the cerebellum through the foramen magnum with respiratory death—sometimes hours after the puncture. It may also increase intracranial hemorrhage. When the patient must be held forcefully, the struggle does more harm than the drainage does good. This method of treatment should always be used only after careful consideration and the fluid withdrawn slowly.

Operative decompression is now seldom used except when epidural hemorrhage is suspected and exploration demanded. Continued drainage of fluid through the open meninges is the main beneficial factor in subtemporal decompression, as little extra room is afforded by the opening. When much free fluid is present, dehydration and lumbar puncture will accomplish the same results in most cases.

No routine treatment of this type of injury can possibly fit even a majority of cases. Only after repeated careful examination, a thorough understanding of the physiological and mechanical problems involved, appreciation of the underlying pathology and a practical working knowledge of neurology, can one manage these difficult injuries to the best advantage. Even then, many die of massive brain damage, succumb later to complications, or survive with post-traumatic encephalopathies which interfere with their earning capacity and enjoyment of life.

Type III—The remaining mechanism of injury to the head is a glancing blow or a sliding fall upon the head. The effects of this sort of trauma are as follows: The scalp is brushed or pushed until it tears and then peels off of a variable area of the skull. The latter is usually bare, as the pericranium is less firmly attached to the skull than the other layers are to each other. The skull is damaged only by contamination or by scratching. It is not bent in to produce a depressed fracture when a glancing object strikes against it, nor does the head come to a sudden stop when it strikes the ground, other than vertically. Therefore, the skull does not flatten or change shape sufficiently to break. The brain is not injured by depressing the bone, nor is it severely shaken up by a sliding stop. It is very seldom that a patient with an avulsion of the scalp suffers more than a local contusion or concussion. Here, other than rest and watching, attention is required only by the scalp wound.

Thorough cleansing—after novocain blocking of the involved area, using only aqueous solutions, preferably Dakin's solution, scrubbing with gauze or a brush, flushing with solution mechanically to remove the dirt, hair, gravel, etc., ether for removal of the grease and curetment of any grooves or deep scratches on the skull to remove foreign material, effects sufficient sterilization of these wounds to permit replacement of the flap **without drainage**. Trimming only the dirty and contused portions of the scalp margins is needed. The clean torn edge like the margin of an incised wound, does not need debridgment. Atmospheric pressure holds the scalp flat firmly against the bone and seldom does even serum accumulate and require evacuation between the stitches. Daily inspection will reveal any fluctation, and adequate drainage can be provided by removal of appropriate sutures in the rare cases where infection develops.

Certain accidental complications of the foregoing types of head injuries call for separate mention. Type I wounds entering the paranasal sinuses and cribriform plate require immediate operation with closure of the communication by dural suture or graft, or both, and that external drainage be provided for the nasal secretions. Otherwise, septic meningitis develops. This highly fatal complication is not always prevented even by early and thorough treatment.

In Type II injuries (a) the fracture line may enter a sinus or the cribriform plate requiring closure—if possible. (b) The crack may enter the temporal bone injuring the inner ear and tearing the dura, lateral sinus and ear drum, allowing escape of blood and fluid. This complication is seldom serious, as bleeding usually stops spontaneously, and the fluid may drain freely without resulting in meningitis—unless the ear happens to be infected. No treatment is advisable other than keeping the ear wiped out and lightly packed with sterile cotton frequently replaced. (c) The middle meningeal artery groove may be entered, tearing the artery and giving rise to an epidural hemorrhage. A secondary loss of consciousness, rapidly increasing intracranial pressure, a contra-lateral hemiplegia and dilatation of the pupil on the same side are evidence of this condition and demand immediate subtemporal exploration, clot evacuation and control of hemorrhage. The bleeding middle meningeal artery and its branches can usually be stopped by electro-coagulation, even if near the foramen spinosum, by elevating the dura with a lighted retractor and the use of suction. This complication is usually fatal if not promptly recognized and treated. (d) A fracture line may go through the sella region involving the hypothalmic structures with diabetes insipidus following, or may tear the carotid artery in the cavernous sinus, resulting in pulsating exophthalmus from the arterio-venous fistula. Ligation is the required treatment.

Following Type III injuries, sometimes as long as weeks or months an accumulation of blood and serum between the dura and the arachnoid membranes occur. This is from a torn vein as it crosses the subdural space, the tear occurring when the brain sags suddenly away from the skull. Such an accident doubtless happens frequently in severe head injuries, but obviously any swelling of the brain obliterates the subdural space and low pressure venous bleeding cannot occur. The signs and symptoms of a subdural hematoma are those of a brain tumor with little or no localization. Cure usually follows promptly upon evacuation and drainage of the clot and serum through "burr" openings in the skull. Rarely the false membrane must be removed through an osteoplastic flap. Sometimes through a tear in the arachnoid, fluid alone escapes into the subdural space where it cannot be absorbed and a subdural hygroma accumulates with similar results.

Gunshot and stab wounds might be considered as separate types. However, stab wounds fall into Group I, as they open the scalp, drive a small area of bone inward, do only local damage and require early debridgment to prevent intracranial infection and present favorable lesions.

Bullet wounds combine a perforating type of injury with a wide-spread brain damage and deep hemorrhage, with the same serious and destructive effects and need of control of pressure and physiological management as the Group II cases.

Using this classification, if one knows the manner in which the patient has been injured, it is easy to foretell with reasonable certainty what sort of injury has been sustained and the probable course of treatment and to some extent the outlook. Needless to say that more than one type of head injury may be present in the same patient. Then one must decide the most likely underlying cause of the signs and symptoms. For instance, it is important to know whether a paralysis is due to contusion, edema or hemorrhage of the brain, not to forget that paralysis can be due to concurrent injury to the cord or peripheral nerves.

* * *

Acute Otitis Media

CHARLES D. BLASSINGAME, M.D., F.A.C.S.
MEMPHIS, TENN.

ACUTE OTITIS MEDIA or middle ear inflammation is a very common disease in childhood and especially associated with head colds and the exanthemata. It occurs frequently in adults, but is usually more severe when it does occur. Those who frequent swimming pools or subject themselves unduly to cold currents of air are prone to attacks of acute otitis media. The necessity of judicious supervision of swimming pools and avoidance of cool air, such as may be experienced while riding, sitting or sleeping in currents of air, is apparent.

The influence of diseased tonsils and adenoids as a factor in the etiology of otitis media is well recognized. Infecting organisms in these structures find an easy access through the eustachian tube to the middle ear. The patency of the eustachian tube is greater in children than in adults thus rendering them more susceptible to middle ear infections. A continued tendency toward otitis media is an indication for the removal of adenoids and tonsils. Removal of adenoids in these cases should be done in such a manner that the adenoid tissue and adjoining tags are cleanly removed. This can be done with the use of a Yankauer adenoid speculum. Through this speculum, any remaining adenoid tissue can be seen after the adenotome has been used and any remaining tags can be removed with the use of a proper punch forcep.

Acute otitis media is of two well recognized types, the acute catarrhal type and the acute purulent type. Acute catarrhal otitis media is manifested by a sudden earache of varying severity. It usually comes on as the result of exposure to cold or as a part of an acute upper respiratory inflammation. This type of middle ear inflammation is most often confused with furunculosis of the external auditory canal. In either case, the patient does not appear to be very ill, only complains of pain in the ear. If it is furunculosis of the canal, pain will be complained of severely when the outside part of the auricle is pulled or pressed upon. No pain is complained of when the ear is pulled upon in the presence of acute otitis media. The degree of fever would not differentiate these two conditions, as in each case there may or may not be some fever. The appearance of the ear drum and the external auditory canal in the two conditions is entirely different. In acute catarrhal otitis media, the canal is normal, but the ear drum is red and may be more or less swollen and bulging. In furunculosis of the canal, while the skin of the canal may be swollen and red either in circumscribed areas or diffusely.

Treatment of acute catarrhal otitis media consists, first, in treating the associated nasopharyngitis by nasal shrinkage and pharyngeal gargles, and second, by measures calculated to allay the inflammatory process and, at the same time, promote drainage of the middle ear through the eustachian tube. The best agent to accomplish this is to apply a cold application over the affected ear in the form of ice placed in a rubber ice cap or in a hot water bottle and covered with one thickness of cloth. Place this rubber bag thus holding the ice over the ear and let it remain hours at the time. Three or four hours of this will frequently stop the earache and cause the redness of the drum to disappear. If the pain, however, continues to increase in spite of this treatment and there are other evidences of an increasing severity of the inflammatory process, such as a rising fever and increased restlessness, then the ear drum should have a wide incision made to allow escape of pressure from the middle ear. Frequently there will be nothing but air to escape from the middle ear when the puncture is made. More often, however, a serous exudate will discharge from the cavity. When the ear begins to discharge, it is only necessary to keep the accumulated secretions wiped away from the outer part of the ear canal. It is rarely necessary to resort to irrigations to promote drainage from the ear. Following the opening of the ear drum, the pain and other evidences of inflammation quickly subside. The discharge will cease from one to several days following, according to the severity of the condition and the thoroughness of drainage. In any event, some deafness and noises in the ear are likely to continue for three weeks or more.

Acute purulent otitis media is a much more severe condition than the acute catarrhal type. In the acute purulent type, the local symptoms may or may not be more severe, but the general constitutional manifestations are much more pronounced. The patient has the appearance of being ill, the face is either pale or flushed, general weakness is noticed, the fever is usually rather high; there is earache of a varying degree and, in addition, there is usually a dull heavy feeling over the side of the head of the involved ear. In most cases, there is a preceding purulent infection of the nasopharyngeal area. It may be superimposed upon an acute catarrhal otitis media. The ear drum is red, thickened and may be bulging. The pus level may or may not show through drum. The general and local symptoms enumerated above justify a diagnosis of acute purulent otitis media. Once the true nature of the disease is recognized, prompt measures must be instituted. The ear drum requires early opening to prevent the pus from invading the mastoid area. Ice caps prepared as described for acute catarrhal otitis media should be applied over the posterior auricular area. This is to allay the severity of the inflammatory reaction in the event the mastoid structures become involved. The mastoid antrum is practically always involved in a severe middle ear infection. Early drainage and proper refrigeration will often prevent it progressing to mastoiditis. The patient's general condition requires wisely directed attention. The fever should be controlled by aspirin, empirin, ice caps to the head, ingestion of ample fluids, etc., as in any other severe acute febrile condition. Laxatives without severe purgation should be administered as required. The diet should be adequate for nourishment.

Sulfanilamide is indicated in acute purulent otitis media and the dosage and method of administration should be similar to that in which it is given in other severe infections. The administration of this drug is particularly advantageous when there is a concurrent streptococcus infection of the pharynx. For adults, an initial dose of 20 grains and 10 grains every four hours following seems to be the preferable method of administration. The dosage for children should be according to age, as usually based on the adult dose. If it is going to be of any value in combating the disease, its maximum effect is obtained within two or three days. Its continued use is not advisable after four or five days because of possible complications which may arise as the result of over use of the drug. Warning has been given against the administration of magnesium sulphate concurrently with the use of sulfanilamide. Complications have been reported as the result of the administration of these two drugs at the same time. The course of acute purulent otitis media is much longer than that of acute catarrhal otitis media. Ten days or two weeks usually elapse before there is complete convalesence from the disease. After three or four days from the onset the disease, if it is going to terminate favorably, begins to subside. If at the termination of ten days or two weeks the disease is not progressing toward recovery, or if there is a recrudescence of symptoms, mastoiditis should be suspected. This condition may come on insidiously or it may manifest itself by a rise of temperature, increased pain over the mastoid area, one-sided headache, tenderness on pressure over the mastoid, edema of the skin adjacent to and behind the auricle of the ear, protrusion of the auricle away from the side of the head, increased reaction of the drum membrane and the skin of the posterior wall of the external auditory canal. X-ray pictures made when these symptoms have developed will usually show a cloudy field over the mastoid cells and confirm the diagnosis. Rarely, however, are all the above symptoms present in any case of acute mastoiditis. Any variation in the combination of these symptoms may be found. All local symptoms may be absent and only the constitutional manifestations of the disease present. It is necessary for the physician to be able to evaluate any symptoms found and not to be misled by the absence of other symptoms which with due understanding of the disease would be overlooked for. Acute mastoiditis, not having a prompt, favorable and complete recovery, becomes a surgical disease. Any tendency toward chronicity is indicative of walled off cells, in the mastoid, filled with pus. Failure to drain these cells endangers the function of the ear and also may lead to serious complications, as regards the life of the patient.

The Problem of Acute Abdominal Pain

E. R. NOBLES, M.D.
Rosedale, Miss.

IN PRESENTING to you this afternoon a subject so broad as acute abdominal pain I will state at the outset that I propose to direct your attention chiefly to the common errors that should not be made when dealing with this urgent symptom. It is true that in a certain rare group of cases it is impossible to determine whether the pain is due to pathology within or without the abdomen. In another but larger group it is not possible to determine whether the pathology within the abdomen is a surgical or non-surgical disease.

Increasing experience, however, continues slowly to eliminate the pitfalls in each of these two groups of cases, though they still remain diagnostic hazards quite often disconcerting if not embarassing. Acute abdominal pain is a symptom that we have to contend with almost daily, and it is highly necessary that we have a good general knowledge of the possibilities, and especially in its relation to other important signs and symptoms, or our management is very apt to be wholly misdirected. This symptom is generally caused by pathology within the abdomen but there are many common diseases outside the abdomen manifested by acute pain within. These will be especially stressed, for to mistake an extra-abdominal for an intra-abdominal disease certainly represents the grosser error.

EXTRA-ABDOMINAL LESIONS

The extra-abdominal lesions most frequently ushered in by acute abdominal pain are thoracic, retro-peritoneal or cerebro-spinal in origin, more rarely hyper and hypo-thyroidism, arachnidism (the clinical syndrome due to the bite of a black widow spider) and a few of the infectious diseases seen especially in children, like tonsilitis or scarlet fever.

Only a few of these should give trouble in determining that the pathology is outside the abdomen, if and provided the history of the case, age of the patient and character of the pain is carefully considered, in addition to the aid that can usually be secured from the x-ray and laboratory.

THORACIC

The chief acute infection within the thorax that is sometimes manifested by abdominal pain is pneumonia. This disease in the adult is comparatively easy to recognize, but in children, especially before definite physical changes have set in within the lung, we are very liable to fall into error, owing to their tendency to refer most pains of thoracic origin to the umbilicus. The characteristic muscle fixation seen in peritonitis is not present in any lung affection if a careful, more or less tactful examination is made. The difference between the muscle tension of lung diseases and peritonitis is that the muscle is never marked or definite spasm. Gentle palpitation will usually reveal some relaxation between the respiratory movements in lung diseases that is not possible with the rigidity due to peritonitis. The abdominal sign, seen in acute lung diseases is limited to the muscle wall and one of the problems in diagnosis is to bring out this feature, which in children may be exceedingly hard to do.

CARDIAC DISEASES

The acute cardiac emergencies, particularly angina pectoris and coronary thrombosis, present quite a different clinical picture from the lung infections. Here also, however, clinically the problem is simplified to some extent by the determination of muscle tone, tenderness, and the character of the pain.

In perforations of the stomach, duodenum or gall bladder the onset of symptoms are equally as sudden and severe as in coronary thrombosis or angina pectoris. This feature is characteristic of all three conditions. But here the similarity begins to recede with time, for they soon pursue a different course. The suddenness of the pain of angina pectoris and coronary thrombosis is usually associated with terrifying sensations of impending death, with the pain radiating upward toward the shoulder and into the back of the arms. In a perforated viscus the pain may radiate into the chest, but we do not see the same psychic disturbance.

A good rule to follow in these cases is to examine every patient under forty years of age presenting symptoms of acute epigastric pathology for both heart and lung disease, with the chances all in favor of the pathology being within the abdomen, and every patient over fifty presenting symptoms should not be operated on until the condition of the heart and lungs (but particularly the heart) is definitely determined. It is a fact worthy of remembering that the males are prone to coronary thrombosis and angina pectoris, and also that negros, Asiatics and Mexicans are almost immune to such circulatory disturbances.

RETROPERITONEAL LESIONS

Abdominal pain is frequently produced by retroperitoneal lesions, and of these perhaps the most common is renal colic, ureteral stricture, Dietls crisis, pyelitis. A distended urinary bladder should be thought of in certain age groups but ordinarily should not give rise to a great deal of trouble in diagnosis. Renal colic is of importance because the pain usually comes on suddenly and is not excruciating. It generally, but not always, radiates downward from the affected kidney. It may be general abdominal, or referred to the lower abdomen, gall bladder region, and even occasionally to the unaffected side. The pain oftentimes is not very typical but usually the history of the case will at least arouse a strong suspicion.

CEREBRO-SPINAL DISEASES

There might be listed under this group of disease tabes, dorsalis, spondilitis, herpes zoster before the eruption and the intercostal neuralgias. Of these, tabes has sustained the most surgical abuse because the visceral crisis of this disease and the girdle pain associated with uncontrollable vomiting, resembles a surgical abdomen. Nazum collected and analyzed records of one thousand cases of tabes and found that nearly ten per cent of these had been subjected to a laparotomy one or more times under a mistaken diagnosis. It should not be overlooked, however, just as in these other conditions, that a patient with tabes might have an acute abdominal emergency.

INTRA-ABDOMINAL LESIONS

In a discussion of acute abdominal pain due to diseases within the abdomen it is chiefly necessary that we distinguish the operable from the non-operable, although undoubtedly it is a fair working rule to consider all such operable until proven conclusively otherwise, and has been stated time and again, cathartics and narcotics should be withheld until that time, treating these as the two greatest enemies to diagnosis in this region.

NON-SURGICAL LESIONS

The greatest variety of diagnotic problems offered by the patient with pain due to abdominal disease is recognized by all of us. The simulation of an acute surgical lesion by a medical condition in the abdomen occurs often enough to justify emphasis, so that we may relieve these patients of a surgical attack as often as possible. The non-surgical lesions often seen that are most confusing are: acute gastritis, gastro-enteric infections and ulcers, colitis, cholangitis, intestinal parasites, rheumatic peritonitis, dysmenorrhea, pregnancy, Henochs purpura and diabetic acidosis and the affects of atabrine on the intestinal tract. If these possibilities are thought of, a careful history taken, and a thorough examination made with a bloodcount and urinalysis, but few of these should ordinarily be open to much doubt.

Ulcers in the gastro-intestinal tract oftentimes cause acute pain with varying characteristics. These have received names from their location as gastric or duodenal from their character as typhoid or tubercular. We also have to contend with embolic, thrombolic, syphilitic and toxic ulcers in this region. Most of these are doubtless entirely medical except perhaps those gastric or duodenal types, which are by far one of the greatest interests, for they belong to the trio of common disturbances within the abdomen, namely: ulcers of the stomach and duodenum, acute cholecystitis and acute appendicitis. Owing to the property of these three conditions of usurping each other's symptoms in such a way that what appears to be one will turn out to be the other, it is necessary that we be especially on our guard in dealing with these. Pain is the guiding symptom and not infrequently diagnosis depends upon its relation to the taking of food, or vomiting, or the location of the point of maximum tenderness.

Another puzzling condition is purpuric lesions which are frequently preceded for a few hours, sometimes days, by abdominal pain. This condition is a serohaemorrhagic infiltration of a limited area of the stomach or bowels, similar to that occuring on the visible surface of the body, and belongs to the angioneurotic group. It is due to some chemical or toxic agent or may be an anaphylaxis, and associated with is there may be an elevation of temperature and a leucocytosis. Children seem to be more susceptible but it is seen in adults, though in family groups and it is necessary to bring out the story of previous skin lesions of the unticarial or arythematous group or of abdominal colic, in order to suspect the diagnosis. Balyeat has often drawn attention to food allergy as an occasional cause of abdominal pain and states that it gives rise to this symptom in much the same manner that contact between the mucous membrane of the respiratory tract with pollen to which it is sensitive gives rise to hay fever or asthma.

OPERABLE LESIONS

The successful management of operable lesions demands at least that our diagnosis be accurate enough so that the incision can be properly made, and there are none of these of such urgency as to preclude a blood count and urinalysis, at least. Here again the chronology of the pain, when taken into account with proper consideration and studied with respect to its location, manner of onset, duration, severity, intermittency, its radiation and its relation to other prominent events, provides invaluable diagnostic information. Many times a diagnosis will depend on the sequence of the symptoms, pain, nausea and vomiting, muscular rigidity, rebound tenderness, fever and collapse.

The most common diseases constituting this group are: acute appendicitis, cholecystitis, intestinal obstruction, intussusception, congenital pyloric obstruction, the perforating lesions, ruptured extra-uterine pregnancy, salpingitis, torsion of a pedicle of an ovarian tumor, acute pancreatitis, torsion of the great omentum in whole or in part, and diverticulitis. It is not possible or necessary to make a preoperative diagnosis in some of these, so it will not be brought into the discussion directly, and these are mentioned only because pain is the outstanding feature.

Standing at the head of the list of these conditions is acute appendicitis, which must be considered first, last and always a cause of acute abdominal pain, and it is well to remember its inherent quality of imitation. Pain, nausea and vomiting, rebound tenderness which is present in ninety per cent of these cases, fever, in the order mentioned, means appendicitis. And when the sequence is changed the diagnosis should be questioned, for it is very unusual that nausea and vomiting precede the pain in this disease. This pain is marked by certain other characteristics and is oftentimes first referred to the epigastrium or umbilicus to become localized within twenty-four hours to the region of McBurney's point, if it does not first begin there.

Perhaps second in frequency of the operable lesions, in this region is gall bladder disease, and here too the pain has some striking features, the forerunner often being some digestive disturbance, with gas during a varying interval, the pain amounting sometimes only to a mild discomfort after eating, with a tendency to shift in the course of time from the pit of the stomach to the right costal margin. Gallbladder disease, excluding perforation, is rarely a surgical emergency and the more recent refinements of diagnosis with the x-ray provide invaluable aid in determining disease of this organ.

INTESTINAL OBSTRUCTION

Intestinal obstruction is the greatest hazard of any abdominal disturbance.. The morality still remains about fifty per cent, and this is due primarily to the delay in diagnosis. Hendon, who has written a great deal on this subject, states that whoever understands intestinal obstruction understands abdominal surgery. His opinion is that a great proportion of the delay is due to the desire on the part of the attendant to obtain the complete textbook picture of all the symptoms. He further states that the abdominal pain, vomiting and constipation are the only symptoms necessary to justify an abdominal section when this condition is suspected, and contends further that the other usual symptoms, fecal vomiting, feeble pulse, cold surface, should be accepted as signs of impending dissolution. Pain is always present as a witness, and as a rule the lower down the obstruction the longer the interval between the pain and the vomiting. Intestinal obstruction should always be suspected in a patient presenting the symptoms of pain, vomiting and constipation, together with a scar of a previous abdominal operation, or who has recently had a hernia reduced en masse.

When a perforation occurs there comes on momentarily a most violent and unendurable pain; any movement of the patient seems to add to its severity. The rigidity of the entire body presents a striking picture in contrast to the ceaseless unrest of the patient. The abdominal muscles are in a state of inflexible rigidity and the patient's expression, pallid face, staring eyes and sweating brow are of one who is extremely ill. The pulse at first however is hardly altered in volume or frequency and this finding unhappily is a factor in causing a delay in diagnosis which is always serious.Very soon, of course, the pulse increases in frequency and increases in volume, because of the peritoneal contamination, which is the inevitable sequel. The two leading symptoms which I wish to emphasize is this distressing condition is the pain, which is immediate and agonizing, and the fixed decubitus, which is always a prominent sign.

CONCLUSION

In conclusion I want to state to you that these remarks are intended only as a commentary on the chief and most urgent symptom that we have in acute abdominal disease. I no doubt have emphasized unessential points and have omitted some that are essential. I might have mentioned intussusception in children and the relation of pain to the prostration and blood stained stools or mucous, and stated the probability of congenital pyloric stenosis in infants, presenting the symptoms of pain together with projectile vomiting and a history of rapid emaciation, as well as pallor and air hunger following almost immediately the intense pain in ruptured ectopic pregnancy, but, that would have extended the discussion beyond my time, when my object in the main is to remind you that abdominal pain is the oldest, most frequent and yet most descriptive symptom that demands our daily attention, but if taken into due account in its proper relation to other prominent symptoms that are nearly always present it will prove a valuable guide at least in determining extra from intra-abdominal lesions, and surgical from non-surgical diseases within the abdomen.

The Infra-Red Ray

S. G. HARNDEN, M.D.
DALTON, ARK.

THE INFRA-RED RAY, the Cinderella of the radiant energy family, lies between the longest red rays and the shortest Hertzian rays, or in other words, between the longest visible rays and the shortest rays used in wireless telegraphy.

The infra-red is the longest ray used therapeutically, while the hard gamma rays of radium are the shortest, and the ultra-violet occupy a position in the spectrum between the two.

80 per cent of the solar radiation that reaches the earth is infra-red, and only from 1 to 7 per cent ultra-violet.

Infra-red rays penerate living tissue to a depth sufficient to reach and pass through the dermis, and set up a beneficial hyperemia in the parts by which they are absorbed, while few ultra-violet rays pass the horny layer of the skin, being absorbed by the blood and increasing the germicidal properties of that fluid.

Some elementary writers in an effort to make the germicidal action of the blood easily understood, compare the animal body to a fort, and the germicidal properties of the blood to the garrison. Under this plan of explanation, the infra-red ray would be the force that awakens the corporal of the guard; and the ultra-violet would be the power that kept up the supply of recruits and ammunition. Many years ago, when Finsen uncovered the astounding fact that the persistent and intelligent use of ultra-violet ray would cure rodent ulcer, a disease that hitherto had often resisted all treatment, medical or surgical, and steadily advanced to terminate in a horrible death, the medical world seemed to have become so excited that it overlooked entirely the other end of the spectrum, excepting, possibly, the x-ray; and it is only quite recently, comparatively speaking, that the infra-red ray has received a modicum of the attention due it.

The notion that the infra-red ray is only palliative, and possibly in some cases prophylactic, is rapidly disappearing; and among those who care to know the opinion prevails, and is well founded, that as a general benefactor of the human race it is even superior to its aristocratic cousin, the x-ray. Furthermore it has the all-important virtue of being incapable of doing harm; even the most optimistically reckless young doctor out to create a sensation can hardly do more than cause a superficial blister with this ray. And this blister would be caused by the heat rays that accompany the infra-red, and not by the infra-red itself, which develops heat only when absorbed by the tissues, and is impalpable and invisible.

The skin blisters at 120 degrees F.; so, if it is wished to avoid even the inconvenience of a blister, a thermometer may be placed in contact with the part being treated, and the temperature held around 115 degrees.

However, in most cases the sensations of the patient are a reliable guide; but sometimes a thrifty patient, actuated by a desire to get the most for his money, will tolerate treatments stronger than necessary, with the result that a few small blisters may form, or one rather large one.

These blisters are in the nature of a sun burn, and are not to be compared with those caused by the mustard plaster of our grandmothers. Left to themselves and protected from injury, they will dry up and disappear in a few days.

But of course, the most innocent and painless of blisters can very easily be converted into a troublesome sore by injudicious meddling; and the patient should, therefore, be warned in advance to let them strictly alone, further than taking measures to protect them from injury, or infection.

If the patient is interrogated from time to time and the intensity of the treatment kept below the point that causes real discomfort, blistering will never occur, save in those very rare cases, such as syringomelia, where sensitivity to heat and cold is lost; and these cases will be detected by testing his sensitivity at the beginning of the treatment.

The infra-red ray is not only itself, in the matter of creating a severe dermatitis, perfectly safe, but it also, according to French[1] and English[2] specialists, affords the most successful treatment for radio-dermatitis. Also, as demonstrated by Major Sampson, of the Walter Reid U. S. Army General Hospital, Washington, D. C., this ray, combined with ionizing doses of x-ray, ultra-violet ray and diathermia, offers the only successful treatment for that most distressing lesion, the so-called chronic x-ray burn.

On casual consideration it would seem that the infra-red used in Dr. Sampson's technique was only one unimportant factor in the treatment; but when we remember the greatly increased efficacy of an ultra-violet when preceded by 20 minutes of infra-red, and the intense hyperemia caused by the infra-red, we are bound to confess that it was the most important modality used. The infra-red rays used by Sampson were obtained from a 1500 w. bulb, and the luminous waves, being turned to the human retina, would occupy the center of the stage, while the invisible infra-red would deliver the real service. The energy delivered by a 1500 watt bulb would probably approximate 80 per cent infra-red, leaving only 20 per cent for all other wave lengths; and in a so-called ultra-violet treatment given with the mercury arc the emission of infra-red is more than double the emission of ultra-violet.

It is not unreasonable, therefore, to assume that the infra-red deserves the major part of the credit for the success of the Sampson technique, and that the title "Infra-Red Ray Treatment of Chronic X-ray Burns" would be as appropriate as any.

It is well to keep in mind that, under present conditions of practice, it is impossible to use radiant energy of any one wave length.

Each element delivers waves of various lengths, and we name it according as this or that predominates. If the emission from an equipment is rich in ultra-violet, we call it an ultra-violet, and so on.

If the time ever comes when the various wave lengths can be separated without undue expense, this defect in nomenclature will be repaired, and each modality given its proper place in therapy.

Much failure in infra-red therapy is due to indifferent technique, such as using a long wave when a short one is indicated, as it generally is. There is no direct method of measuring the ray's wave length during its application, but the length of the ray, and its frequency, follow the temperature of the generating element; and this can be estimated well enough for all practical purposes by observing the element's degree of incandescence.

Manufacturers could improve the convenience and efficacy of their infra-red lamps by simply equipping them with built-in thermometers.

This matter of wave length is very important in any form of radiant energy. For instance, the short wave ultra-violet rays are irritative and germicidal, and the long ones sedative, while infra-red rays of more than 60,000 Angstrom units in wave length, so far as is now known, have no therapeutic value. Infra-red shorter than 15,000 Angstrom units penetrate deeply into the tissues before being absorbed, while the longer ones, between 15,000 units and 30,000 units, are largely absorbed by the skin.

Thus, the shorter infra-red rays supply the deeper tissues with convective heat, while the longer ones merely supply conductive heat.

However, it must not be assumed that rays even wholly absorbed by the skin are incapable of setting up a reaction by means of which they benefit remote parts of the body. Such an assumption would practically eliminate the ultra-violet as a therapeutic agent, leaving only the direct germicidal action of its shorter waves. But it is well known that the ultra-violet acts upon ergosterol in the skin to form viosterol, which in turn supplies the body with the very necessary vitamin D. And it is possible that the infra-red has a somewhat similar action, as yet undiscovered.

Even now it is known that general irradiation of the body with this ray will lessen the proportionate quantity of leucocytes, and thus offers a promising treatment for leukemia.

The apparent inconsistency of its beneficial action in cases of septic ulcers and wounds, is explained on the ground that the portion of the body exposed in these cases is small; and, also, that infra-red treatments are commonly followed by general ultra-violet.

But I have often wondered if the infra-red

---

(1) A, Benoit. Revue d'Act. Oct.-Dec., 1926.

(2) Howard F. Humphries. Artificial Sunlight and Its Therapeutic Uses.

might not furnish some at present unknown element of its own that render a leukocytosis less important. Of course, in the present state of our knowledge, no one would recommend general body irradiation with the infra-red ray in cases where the white cell count is below normal; but very profitable research work might be done along this line.

When treating cases of pulmonary tuberculosis for painful pleuritic adhesions, I have invariably noticed a marked improvement in the patient's general condition; but this may have been due to an improved mental outlook due to a surcease of pain.

To give even a synopsis of the many morbid conditions improved by the infra-red ray would require many pages; but I will mention a few and let the reader, after his confidence has been established by trial in these, hunt up others for himself.

We read and hear much propaganda by a certain class of surgeons especially, to the effect that appendicitis is a surgical disease exclusively; and that the general practitioner who fails to have his case operated "day before yesterday" is to be censured for his temerity.

My own experience and observation, covering a period of nearly 50 years in general practice, will not allow me to subscribe to this doctrine. During my whole practice, which has been large, and which has covered more than an average proportion of appendix cases, particularly during the last 10 years, I have lost only one case; and that was more than 30 years ago.

Many of my cases were cases that had refused operation elsewhere, and repeated the refusal here, and I should have been glad to have had some of them operated in the interest of their future peace of mind, if nothing more.

I imagine that some persons suffering from what might be termed an appendix complex could be converted from chronic invalidism to normal health merely by the removal of their appendices, diseased or not.

In from 30 to 40 percent of the appendectomies done by our best surgeons, the appendix is found upon removal to be perfectly healthy; and who shall say that many of these patients did not receive more than value for their money, though in a mistaken way.

In many cases of appendicitis, operation during the first 24 hours is very desirable; but in cases where the patient refuses operation, or for any reason cannot have it, the practitioner that, with a large ultra modern, ultra scientific air, declines to accept or continue on the case, was intended by nature to be an actor, instead of a doctor.

But the days of successful showmanship are rapidly passing, and even the laity is beginning to learn that surgery can kill as well as cure; and that to know when to operate is sometimes more important than to know how to operate. To illustrate what I mean, I will repeat a quotation from the English Year Book of Surgery (1934) used by A. B. Grubb in a recent issue of the Medical World (March, 1937) and which shows the attitude of the leading English surgeons in the matter of "mediate operation:"

"Love, of London, says, 'An appendicular abscess is no cause for panic.' Raynes says, 'The abscess shows that the patient has gained and not lost by the delay.' Shenen, of London Hospital says, 'The only change I have made has been greater conservation and more patience in dealing with appendix abscess.'

"Love feels that those who have the courage to treat cases of appendicular abscess on expectant lines will be more satisfied with results." If I were confined to one remedy for appendicitis, I am not so sure that I would not select the infra-red ray, even at the risk of being considered "unscientific" by those innocent minded mortals who so dearly love a sensation.

But after all, when you come to think of it, which is the most scientific! Irradiation or surgery?

Exclude a few simple surgical principles, and surgery is wholly mechanical, while irradiation carries us into the realm of pure science.

In treating appendicitis with the infra-red ray, the reflector should not be more than nine inches in diameter, and the center of the reflector should correspond as nearly as possible with McBurney's point.

With the patient comfortably arranged and the reflector thus properly placed, and distant from the surface of the abdomen about twelve inches, the current is turned on.

From time to time, as the patient's limit of tolerance is reached, the reflector is raised an inch or two.

Finally a point is reached where the intensity of the lamp and the tolerance of the patient are exactly balanced. An oscillating 12-inch fan is now adjusted to play over the part being treated, and the reflector lowered an inch or more, depending on the tolerance of the patient.

It is hardly necessary to tell anyone having even an elementary knowledge of physics that the dissipation of the heat by the fan will have no effect on the infra-red ray.

Thus arranged, the treatment is continued until pain ceases or is greatly ameliorated. If perspiration gathers on the abdomen, it should be wiped off from time to time, as water strongly absorbs the infra-red ray. When the irradiation has been completed, as above set forth, the abdomen should be thoroughly dried by playing over it a current of hot air. The treated surface is now dusted over with talcum powder, or powdered boric acid, and a soft vacuum electrode carrying sufficient current to produce a half inch spark passed rapidly over it, for eight or ten minutes.

Whatever its *modus operandi* may be, the high frequency current seems to be, when passed through a soft vacuum electrode, something of a synergist to the infra-red.

The current from a soft tube is sedative, while the current from a hard tube is irritative, so a soft tube must be used.

These cases should be treated daily, until all pain and soreness in and about the right iliac region has disappeared.

And, unless the patient cares to have his appendix removed as a prophylactic measure, it is a good plan to have the treatment repeated whenever future pain or discomfort appear in the abdomen.

In addition to the physiotherapy above outlined, the patient should have four grain doses of salicylate of sodium three or four times a day; and, of course, such other medication as may be indicated by his general condition, but always with the appendix well in mind.

If the salicylate of sodium causes any stomachache distress, some one of the other salicylates may be substituted, or the enteric coated tablets used. Also, measures must be taken to maintain the solvency of the intestinal contents, if the physiotherapy fails, of itself, to do that.

And in attempting to maintain the intestinal contents in a semi-fluid condition, care must be taken, of course, to avoid such drugs as unduly excite peristalsis.

But regardless of any hazard, hardened fecal matter must not be allowed to form, or to remain if already formed, in the cecum, since its presence is practically certain to close the opening into the appendix and interfere with free circulation in the *vasa intestini tennis.*

Drastic purgation and bunglesome surgery are both laden with potential disaster in appendicitis; but careful attention to the solvency of the intestinal contents and skillful, conscientious surgery may each, in turn, be all that lies between the patient and the great beyond.

Annandale Troup, the London specialist, states that operation in a sinusitis may often be avoided by irradiation with the infra-red ray, and my own experience corroborates this.

If two treatments fail to ameliorate the case, Dr. Troup calls in a reliable rhinologist, and they treat the case in collaboration. His cases were checked over at regular intervals by roentgen and bacteriologic laboratories, and the findings thus disclosed recorded.

A study of these records showed a steady, almost uniform, improvement. In my own practice, I have been unable to follow this plan consistently, as many of my patients were unable, or unwilling, to stand the expense of a specialist.

However, we have been able to muddle through, so far, with perfect satisfaction to everyone concerned, but including myself, in some cases, only after the termination of the case. These were cases that were stubborn and refused to be referred to a specialist for puncture and lavage, which would have saved them much suffering, and eliminated much danger.

In treating sinusitis, the irradiation should be applied over the affected sinus, or sinuses, as strongly as the patient can tolerate without acute discomfort, and the treatment prolonged until there is a subsidence of pain, or until a slight discharge appears from the nostril on the affected side; or until it has lasted approximately forty-five minutes.

This is to be followed by an intra nasal application of ultra-violet from a mercury are lamp delivered through a quartz rod. The end of the rod should be placed, as nearly as possible, opposite the ostium of the sinus being treated, and the duration of the first treatment should not exceed half of a minute, and this should be increased half of a minute at each subsequent treatment until 5 minutes is reached. But if the patient at any time complains of a very severe reaction, the treatment time should be reduced according to the indications.

Of course, the nostril through which treatment is delivered should be cleansed before the insertion of the rod, but all forms of medicated douches should be avoided, as they may act as sensitizers to the irradiation. These treatments should be given every other day, and the infra-red should invariably precede the ultra-violet.

On the day in between, a general ultra-violet should be given for its effect on the patient's general condition, which is commonly bad—to increase his lymphocytes, eosinophils, blood platelets, antibodies, basal metabolism and blood alkalinity; and to counteract his hypovitaminosis, stimulate his ductless glands and adjust his endocrine imbalance.

Treatment of the ethmoidal and sphenoidal sinuses is a trifle less satisfactory than treatment of the frontal and maxillary. Owing to their location, they are less accessible, and in a manner of speaking, the eyes are in the way. The ordinary goggles cannot be worn without interference with the treatment, but the patient can be instructed to close his eyes, and to keep them closed by gentle pressure with one finger of each hand; or, if he is in very poor general condition, and suffers from fatigue, small cloth discs can be fitted to cover his eyes, and arranged on a spring after the fashion of radio ear 'phones. The cloth used should be woolen on account of that fabric's low conductivity.

Otitis media is another pathologic condition that responds readily to applications of the infra-red ray. In early cases, half hour treatments as strong as the patient can comfortably tolerate will often avoid the necessity for puncture, or the occurrence of spontaneous perforation. And in cases where puncture has been done, or spontaneous perforation has occurred, if the treatments are continued, the mastoid will seldom develop trouble calling for operative interference.

Whatever the adjuvant treatment may have been, it should, if satisfactory, be continued.

At the beginning of the treatment, or at any time during it, puncture of the tympanum must not be neglected, if indicated.

The practitioner that adds the infra-red ray to his usual treatment of acute articular rheumatism has a pleasant surprise awaiting him. It seems to increase the efficacy of the salicylates, rendering smaller doses effective, and relieves the patient of much pain.

If the temperature runs above 104 degrees F., the irradiations should be temporarily stopped, and treatment with a vacuum electrode capable of delivering a half inch spark substituted, until the temperature falls a degree or so. And if the first treatment with a half inch spark does not seem to afford any relief, the current may be increased to a point where the electrode delivers a three-quarter inch spark.

The surgeon will find in infra-red irradiation a very useful ally in the post-operative care of his cases, especially his abdominal cases.

The treatments should be started on the third day, and applied daily for half an hour over the site of the wound.

Under this plan morphine is never required after the first 24 hours, and catheterization is seldom if ever needed.

Dr. H. C. Miller has all of his cases treated post-operatively with infra-red and ultra-violet, this latter for its general tonic effect, as a matter of routine; and he states (Arch. Phys. Ther., Feb., 1932) that, since doing so, his patients have left the hospital on an average of three days earlier. He is especially impressed by the results obtained in treating abdominal cases that were not doing so well, and states that the effect on the painful, distended abdomen is often spectacular.

Many practitioners are so pleased with the successful results secured through the use of physiotherapy that they are inclined to throw medicine, and to a lesser extent surgery, into the discard. But this is a mistake that greatly cripples their usefulness, for physiotherapy does not in any sense displace general medicine or surgery; it merely adds one more weapon, and a very effective one, to the doctor's armament. Others, after attempting to practice physiotherapy along the line laid down by the famous Mrs. Hitermiss, and naturally meeting with falure, condemn the whole thing.

But the truth of the matter is that, given the same attention that the studious general practitioner gives to his materia medica, it offers fewer disappointments than any other department of the healing art; and this applies especially to the infra-red ray.

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor & Manager
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Post-Graduate Medical Assembly

LILA SINCLAIR, Blue Mountain College, Artist
DAVID E. GUYTON, Blue Mountain College, Poet

Mid-South Post-Graduate Medical Assembly
EDITORS:
E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dewell Gann, Jr., M.D.

Mississippi State Medical Association
W. L. Little ,M.D. .... President
Joe E. Green, M.D. .... President-Elect
T. M. Dye .... Secretary
EDITORS:
Leon S. Lippincott, M.D. D. W. Jones, M.D.
G. S. Bryan, M.D.

COUNCILORS:
J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J. Gould Gardner , M.D.
Thomas J. Brown, M. D. W. H. Frizell, M.D.
D. J. Williams, M.D.

Published monthly at Booneville, Mississippi

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act of March 3, 1870.

Memphis, with its fine medical school, is steadily growing as a medical center.

It is never too late to pay your medical dues. If you have not paid them yet do it now.

We appreciate very much the new Coca Cola ad in this issue of the journal.

The decentralization, or we might say, the proper distribution, of the medical profession is still of great importance.

With an up-to-date charity hospital at Jackson we could institute an internship of two years that would be a great asset to our state.

A clean office with equipment and a trained nurse will do quite a bit to solve the economics of medicine.

The practice of preventive medicine is big enough to enlist every person in the entire profession.

If our medical problems are to be solved the plan will most likely begin with some county society.

If hospital insurance is good it will aid the patient, the doctor and the hospital equally, or it should. Study it earnestly and discuss it frankly one with the other.

An able authority recently remarked to us that one-half the sickness is mental. This being true we should certainly do more to prevent this type of disability.

For a four days' postgraduate course in medicine and surgery I am sure the Mid-South at Memphis has not yet been surpassed in North America.

Hospital insurance that gives the hospital only one-half the premium can hardly be said to be written in the interest of the patient or the institution.

Many people go to the barbershop for just a plain shave, no mud massage, no hair singe, no dangerous traumatism to the poor nose. Many patients can take just a plain operation without the frills and make it all right.

How would it do for the Mississippi State Medical Association to start a fund for pensioning the disabled doctor past sixty-five? Just ten dollars from each doctor each year would soon help quite a bit.

You may expect the finest set of papers in *The Mississippi Doctor* it has ever had this year. Some of the Mid-South papers are already reaching our desk. Tell your neighbor about the journal.

Better have an operation for acute appendicitis in a six-bed hospital by a country surgeon within six hours of the onset as a rule than by a Mayo in the largest hospital in the world three days later.

Psychology and psychosis must be reckoned with in the practice of medicine. Plastic surgery is very definitely related to them.

Preventive surgery has great possibilities, gunshot wounds for example. The prevention of the consumption of whiskey would no doubt prevent one-half of this type of surgery, and probably do the same for the one million injuries caused by automobile wrecks. The medical profession cannot sidestep this responsibility.

We term this our Memphis issue of *The Mississippi Doctor*. You will note that we have a number of papers from the Memphis men. We thank each one of them for their contribution, for their cooperation and for their good will. The Memphis doctors are able and they are clever. You will read their papers with much profit.

Make your plans now to attend the state meeting at Jackson in April. You can ill afford to miss your state meeting. It means too much to you. This year we will have the very best all-round meeting we have ever had in our opinion. The meeting at Meridian last year was very fine, but we can make this one better.

You will note the announcement of the New Orleans Graduate Medical Assembly in this issue. It holds its session March 7, 8, 9, 10, 1938. This assembly is offering a wonderful program. New Orleans is a great medical center. Their doctors are fine entertainers. This assembly offers you a fine opportunity to review medicine and surgery in four days, have it reviewed by the outstanding authorities of North America.

The per capita distribution of funds for the indigent sick was a great step forward for Mississippi. This fund with sixty hospitals distributed over the state has certainly given the poor of the rural community and the small town a break that has been long deserved. These hospitals are building around them a little medical center. Through them medical service is being administered more efficiently and more economically. Through them medical education is being brought out to the busy practitioner almost without charge.

Medical economics can no longer be ignored by the profession which on the average is very poorly paid. Both charity and semi-charity are on the increase. The government is deeply concerned, so is the medical profession, or should be. We tried to solve the venereal problem for years by the secret method. It did not work. Our medical problems will not work out in this manner either. Each county society should meet and talk over the problems as they come up, talk freely and frankly just as they would any other business problem. Too much independence will not solve any problem. No man is big enough nor rich enough to be too independent very long successfully.

We deeply appreciate our advertisers. Without their help we could not publish the journal. This journal is doing its best to render a service. By cooperating with us with your advertising you are helping to do this service. Other things being equal we ask the friends of the journal to buy from the firms who advertise with us. It will not cost you anything; it will help us. The courtesy cards we very sincerely appreciate. We take them as a friendly hand to help in an honest effort to advance scientific medicine and to aid in its application in the interest of both the doctor and the patient. We are grateful to one and all who are helping us.

Last spring at the State Medical Meeting at Meridian the following companies were represented with exhibits: Bard Parker, Mead Johnson, C. V. Mosby Co., General Electric X-Ray Corp., A. S. Aloe, Squibb & Co., McKesson, Dorster-Northington, Inc., Bell Orthopedic Table, American Opitcal, Southern Surgical Supply Co., Estes Surgical Supply Co., Gwinner-Mercere Co., Medical and Surgical Supply Co., Dick X-Ray Co., J. A. Majors Co., This was a nice bunch of exhibitors. We hope they may come back this year to Jackson. We feel sure that the Mississippi State Medical Association has not realized just how much the exhibitors can be worth to the association. Our state association should select one man for a term of five years to have charge of the space regardless of where the convention is held in our opinion. He should be paid a commission and then what is taken in above this should go to defraying the expenses of the association, some of it to pay expenses of essayists. Our best men cannot fill so many engagements when their expenses are not paid, don't feel that they can, often times. The exhibitors have been one of the corner stones in building the Mid-South to where it is. In the main we believe that the exhibitors are co-workers with us in the cause of medicine and surgery. At Jackson Dr. D. W. Jones has charge of the exhibits, the space. Jackson, with Dr. Jones as their representative, will be most cordial to the exhibitors.

Hospital insurance has been a live question now for two or three years in our state. Those who advocate it argue thusly. It will make the income to hospitals more secure and medical service for the middle class more certain. It is easier to pay a little each month and to get the habit of so doing. When the hospital bill is paid there will be more left for the surgeon or the medical man. The one who is fortunate enough to have good health will help to pay the bill of the unfortunate sick. With the hospital bill already paid there will be no delay in getting the urgent case admitted. The day of insurance is here in everything. By means of hospital insurance the middle class and near poor will pay their own bills instead of making it urgent for the government to do so. Others do not see the picture so rosy for the ills of medical economics—and take another slant. The hospitals are the most vitally interested from a financial standpoint. The doctors in charge of the hospitals can use this prestige to a great advantage in the matter of hospital insurance. Hospital insurance will lead to state medicine instead of away from it. The people who need the insurance most will not take it, are not able and would not take it at the price at which it is now offered. A very small per cent of the sick need to be treated in the hospital and this insurance will only muddy the waters for the whole problem rather than solve it. Some believe that independent companies should write the hospital insurance as they do life, sick and accident insurance. Others think this insurance should be controlled by the hospital association or the hospital and the medical associations jointly. Many believe that hospital insurance will work all right in an industrial center where a large per cent of the people have a monthly, or weekly wage, and where each doctor can follow his patient to the hospital if necessary, but cannot function in rural areas such as we have in Mississippi where it is impossible for a large per cent of the general practitioners to follow their patients to the hospital for treatment. The general practitioner can scarcely survive now, and if he loses many pay patients to the hospital staff fifteen to thirty miles away his financial troubles are further aggravated. It is not conventient for the average farmer in the South to pay insurance by the month. If only surgical cases are admitted on the recommendation of the family physician there will be much room for confusion.

The above are some of the ideas running thru the minds of the medical profession in re hospital insurance. It is right to think on this subject. It is good to have the courage of your convictions. But we should think in terms of justice and fairness and unselfishness and in terms of brotherly interest. The country practitioner has played a noble part in service to the people and his interest should be carefully considered. Our hospitals have served a noble purpose also and we must not be prejudiced against them. The freedom of choice of physician and hospital on the part of the patient is as sacred as Divine teaching and we cannot break this and live up to the ideals of our forefathers in the profession.

MEDICOS TO MEMPHIS

Memphis is the Mecca
For the Medicos.
Proud Peabody beckons,
Fair the River flows.

Aeroplane and auto,
Boat and bus and train,
Concentrate on Memphis,
Grander heights to gain.

Lure of learned lectures,
Quiet question nooks,
All the wit and wisdom,
Delved from doctors' books,

Clasp of hands of comrades,
Charm of banquet cheer,
Memphis, as High Hostess,
Proffers every peer.

Doctors, big and little,
Hear your Hostess call:
"WELCOME TO THE CITY,
WELCOME, ONE AND ALL!"

—David E. Guyton Blue Mountain, Miss.
Written for *The Mississippi Doctor*
by request of the Editor.

On to the Mid-South Post-Graduate Medical Assembly for four days and nights beginning February 15th. Memphis on the Mississippi down in Dixie is a great convention city. It is a city rich in history and romance. In it the spirit of Bedford Forest still lives and has its influence. Many people have read *The White Rose of Memphis* and have been thrilled with the romance of this city on the Nile of North America. Memphis still nestles the culture, the refinement, and the valor of the Old South. It is one of the chief citadels of King Cotton. It is always warm with political ferver and its interests in world affairs are living and keen. For modern business and industry Memphis has the eye and the ear of this and other nations. Her people are cordial and clever. The wonderful service of her hotels is a great boon to any convention. The medical profession always offers a cordial hand and it entertains most lavishly. Memphis has within its borders a great medical school and one that is growing in magnitude of service and in the hearts of the people.

The Mid-South Post-Graduate Medical Assembly is distinct in its type of program. It offers a post-graduate course covering the field of medicine and surgery in four days and nights by the outstanding authorities of North America. One hour is given to each essayist and no discussions. At the luncheons each day any one may ask questions and discuss subjects with the visiting men on the program. This gives a great opportunity for the general practitioner and the specialist to swap ideas, and to learn one from the other. At the Mid-South you do not miss anything. Listen to every lecture, ask questions at the luncheons, exchange ideas with your fellow doctors, enjoy the inspiring fellowship of the profession of Memphis, and breathe the atmosphere of Southern culture and modern industry.

Warbasse-Smith, recently published by W. B. Saunders Company, is one of the best works the general surgeon can have in his office. It covers in a very concise, dependable and usable manner the field of general surgery and also what the general surgeon most needs in general medicine. J. A. Majors Company handles this most valuable set of books which comes in three large volumes. Look it over at the Mid-South.

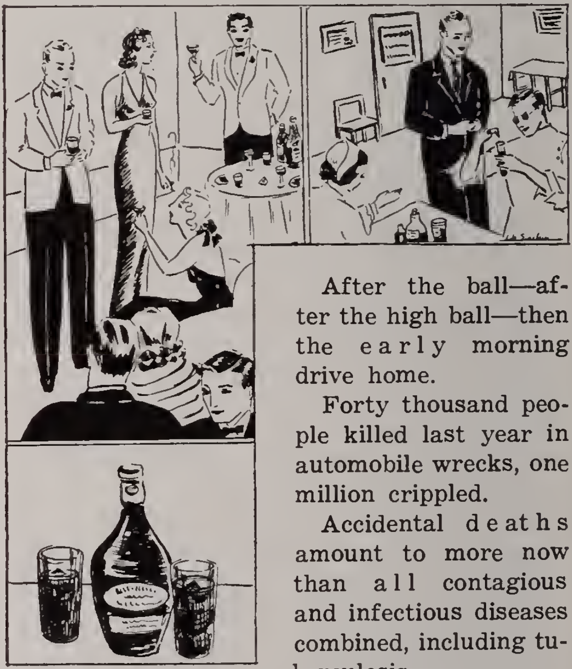
Listen to the call of Dr. W. L. Little, President of the Mississippi State Association, for a hundred percent membership. In organized medicine there is, or should be, much strength. You owe it to yourself and to your clientele to pay your dues and become an active part of organized medicine.

If it is proper to charge for medical service in proportion to a person's ability to pay then the resettlement practice problem should not be difficult.

The chief oratorical surgeon of North America, Dr. W. D. Haggard, of Nashville, will probably fill a vacant place on the program.

This journal will publish all papers read at the Mid-South. Some have been received already.

Remember the state meeting at Jackson, Miss., April 19, 20, and 21. Keep these days set apart and be sure to attend.



After the ball—after the high ball—then the early morning drive home.

Forty thousand people killed last year in automobile wrecks, one million crippled.

Accidental deaths amount to more now than all contagious and infectious diseases combined, including tuberculosis.

The dram drinker is more dangerous as a driver than the drunkard.

One half the homicides may be traced to whiskey as the main cause.

There is a definite relation between the contraction of venereal disease and the consumption of alcohol.

In the current issue of the A. M. A. Journal two additional fatal cases of agranulocytosis, resulting from the use of sulfanilimide, are reported. This brings the number up to forty-two having been previously reported. These fatalities added to the numerous reports of rather disconcerting reactions following the administration of this synthetic drug should be borne in mind by every one who contemplates its use. This writer sees no reason for a changed attitude in regard to the use of this drug. In the face of the many claims of beneficial results in certain conditions, I would not dare to condemn its use unqualifiedly. As previously stated, I have used it and may continue to do so with caution. But I have yet to see any favorable results from its use, and I have seen unmistakable reactions that were far from pleasing. It is, also, true that these untoward manifestations subsided promptly on the withdrawal of the drug. Each of the four deaths was due to agranulocytosis that did not respond to the usual treatment for this condition. Hence it seems to me that a close daily watch of the blood picture should be kept in every case that receives the drug; for only in this way can one know just when it is safe to use it. It is probable that only those who have an idiosyncracy to the drug are endangered by its administration—still since there is no way known by which idiosyncracy may be discovered in advance, it is very wrong to take chances with human life.

In the last issue of this journal I mentioned the fact that I had under observation a woman who had been given the so-called elixir of sulfanilimide about the time that so many fatalities were being recorded. This woman took only one or two ounces of this concoction, but even so, she evidently escaped death by a narrow margin. Within the hour she has been in my office and it is now very plain that she is overcoming its raging and death dealing effects.

* * * *

When this issue of *The Mississippi Doctor* reaches the desks of its readers the peak of the pneumonia season will have been reached. This means that more deaths will occur during the next two months than during any like period of the year. Pneumonia is still one of the three great captains of death. It has taken its toll for so long that it seems to be taken for granted and no special thought or care seems to be given the subject. When we consider that its incidence is so great and that the death rate is so high (40% or more) it does seem that both doctors and the people should be more interested than they seem to be. Since it so frequently follows an attack of common cold, more thought and care should be given these apparently slight complaints. Again we doctors are too slip-shod in our diagnostic methods. We are too prone to call cases of deep seated colds pneumonia as a light matter. Faulty diagnosis means that we and our clientele come to regard pneumonia all too lightly. Let us not forget that more than a physical examination, be it ever so carefully made, is needed for correct and definite diagnosis. Any capable doctor can, in a short time, in most cases, find the pneumococcus. But even so the diagnosis is not complete until the type of the organism has been recognzied. Formerly this was not so imperatively necessary. But since it is now possible to treat these cases more successfully with specific sera, it is obligatory that the organisms be typed. This, too, can be done in fifteen to thirty minutes *by any capable doctor*. However, since diagnostic laboratories ae so conveniently located, this typing can be done and the necessary serum obtained and delivered within one or two hours. But let us not forget that this must be done EARLY. A few hours delay may mean a life lost. Again let us remember that aside from specific sera and good nursing and supportive measures there is *no known medication* that is worth the using. Let us wake up—catch step—and learn that pneumonia is prevalent— that it is fatal—that but one real effective therapeutic course is open to us. But let us, also, remember that by following this course, *some* lives may be saved. But if you will not resort to this single known treatment of value, for heavens sake do not try to treat pneumonia—**treat your patient instead of the disease!**

There seems to be a ray of light and hope appearing. It seems that some headway may soon be made in the effort to *prevent* the incidence of this horrible sickness. It is to be hoped that ere long we may have a prophylactic inoculation against it. At least let us wait and watch and pray that such may be the case.

G. S. B.

LIVER FUNCTION AND ITS RELATION TO THE MANAGEMENT OF GALLBLADDER DISEASE

By R. L. Sanders, M.D.
Memphis, Tenn.

Clinical surgeons are gradually realizing the importance of learning more about the physiology and pathology of the biliary tract. Experimental research was necessary to solve some of the problems before us. The advancement in our knowledge of the bile tract during the past fifteen years has amply borne out this fact. Several years ago, Judd, a clinical surgeon, and Mann, a research scientist, jointly worked out and published their findings on the effect of removal of the gallbladder on the extra-hepatic ducts. Similar problems have been solved each year since that time. The viewpoint of clinical surgeons and clinicians has necessarily changed in many respects to meet the new concept. Our real task now is that of correlation and application of the many research and clinical problems regarding liver function, and liver and bile tract pathology.

It is interesting to compare the liver with the pituitary gland. Although the pituitary body has long been recognized as a very important organ, its real significance has not been appreciated until recently. Today, it is regarded as the master gland of the organism. It is the "boss." It initiates and controls many of the most vital functions of the body. By comparison with the liver, the pituitary gland is exceedingly small, yet it guides the destiny of body size and shape, the length of the bones, deposition of fat, arrangement of hair, menstrual function, involuntary muscle contraction, and other activities. Just the opposite may be said of the function of the liver. The largest of all the organs, it may yet be designated as the physiologic drudge. It is the body servant, and the body guard against toxic invasions, often at its own cellular expense. There is something rather human about the liver; it just goes on about its work with little help from outside stimuli. Much of its work is done under physical and biochemical handicaps. Among its manifold functions, that of metabolism of foods surely must be the most important. It is ever ready on short notice to mobilize and send to other organs suitable food in utilizable form when needed. Surgeons are prone to follow with concern the postoperative condition of the patient's lungs, heart, and kidneys. Rightly so. But often little thought is given to the process going on in the "boiler room," where the liver is silently struggling with serious problems.

Realizing the importance of the liver in maintaining proper body equilibrium, it is not surprising to find an imbalance of functions when some other organ, such as the gallbladder, becomes diseased and profoundly disturbs hepatic activity. It is a well known fact that cholecystic disease with an appreciable degree of biliary duct obstruction will result in a condition of dilatation of the ducts, damage to the liver cells, fibrosis, contraction, and marked crippling of liver function. It is needless to state that mortality is materially influenced by advanced changes in the liver parenchyma. One of our most convincing arguments in favor of early cholecystectomy is that by this means serious structural changes in the liver may be prevented.

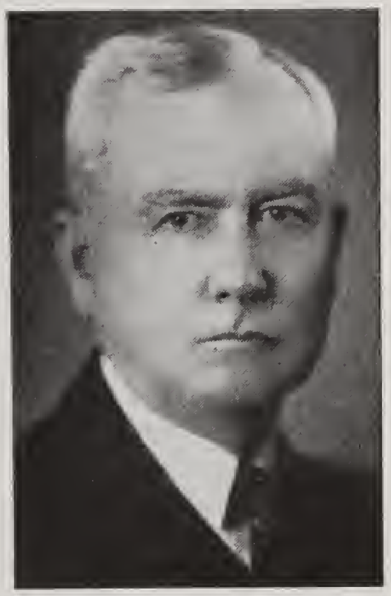
Today, the problem of chronic gallbladder disease is well understood. The clinical history and laboratory aids to diagnosis have been so accurately worked out that a positive diagnosis may be made in a high percentage of cases. The indications for operation are usually clearly defined, and the operative technic is practically standardized among surgeons of large experience. Studies of end results of large series of cases have been published, and sufficient data are now available to justify one in formulating a satisfactory prognosis in the majority of cases. The mortality should not be high in our modern hospitals. We no longer hesitate to advise surgical treatment of chronic gallbladder disease when it is indicated.

What should be done about acute cholecystitis? Should operation be performed immediately, or should it be delayed? This controversy is occupying a conspicuous place in current medical literature and is being widely discussed at medical meetings. Until recently, the problem was settled at each meeting; the surgeons returned home and continued their usual practice of allowing the acute symptoms to subside before resorting to operation. The changing order is here. More and more, excellent papers are appearing, championing the cause of immediate operation in acute cholecystitis. Such surgeons as Heyd, Clute, Heuer, and Andrews definitely favor prompt surgery in cases of acute gallbladder disease. The impression is now quite general that the results obtained warrant the procedure.

The pathology of acute cholecystitis is fairly well known. There seems to be a sequence of events in the majority of cases. First, there is a primary obstruction of the cystic duct, usually by a stone; secondary infection, swelling of the tissues, and damage to the blood and lymph supply follows. The ultimate pathologic state depends largely upon the amount of damage to the blood vessels. In other cases, occlusion of the cystic vessels, infarction, necrosis, and perforation of the gallbladder wall may occur without the presence of a primary obstructing stone in the cystic duct. It is a well known fact, however, that mechanical, circulatory, and metabolic changes usually take place before the onset of infection. It is now recognized that infection is a far less important factor in acute cholecystitis than was formerly believed. Strangely enough, the pathologic process conforms to that of strangulation of tissues, and the postoperative course of patients amply confirms this observation. The disease condition of acute intestinal obstruction, strangulated hernia, twisted pedicles of cysts or other tumors, and tissue strangulation from any cause, in all of which infection plays a secondary part, is comparable to that found in the average case of acute cholecystitis. If operation is performed early and the condition promptly relieved, recovery is usually rapid and satisfactory. A like result may be expected if the large, acute gallbladder is removed within the first forty-eight hours after the onset of pain. In my own experience, the mortality has been very low in a fairly large group of cases.

On the other hand, there are many things to be considered in favor of delaying operation. The attack will usually subside, and the operation may be carried out in a less dangerous period. The ducts and vessels may be identified more easily in the chronic than in the acute stage. The surgeon with less experience may feel more security in operating upon the chronic than the acute gallbladder. Again, the uncertainty of the diagnosis may be a deterring element in the decision to operate at once. Much may be said on both sides of this question and it is therefore far from being settled. The trend of current thought and practice is toward more operations in the early stage—under forty-eight hours—of acute cholecystitis.

DR. R. FORD RATLIFF



H

Above is the likeness of Dr. R. Ford Ratliff, of Lucedale, Miss. He was born on March 2, 1878 at China Grove, Miss.

Dr. Ratliff graduated in medicine from the Tulane University School of Medicine in 1901 and has had postgraduate work at Tulane Medical School, Mayo Clinic, and at Saluda, South Carolina. Dr. Ratliff has practiced medicine in Lucedale for thirty-six years. He is a member of the South Mississippi Medical Society and the Mississippi State Medical Association. Dr. Ratliff, probably more than any other man, is a believer in organized medicine and is a booster of local and state medical organizations. He has been health officer for almost twenty years and for the past thirty-six years has operated an up-to-date drug store at Lucedale.

Dr. Ratliff was married to Miss Josie Kennedy, of Carlisle, Ky., and has one fine son, Robert Ford Ratliff, Jr.

Dr. Ratliff is also vice-president of the Mississippi State Medical Association.

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The second annual New Orleans Graduate Medical Assembly will be held at the Roosevelt Hotel in New Orleans on March 7, 8, 9, and 10, 1938.

For over one hundred years, New Orleans has been recognized as one of the nation's greatest medical centers. During that century it has been growing progressively greater in importance. Being the second port of the United States, its geographic situation has made it a crossroad of the shipping of the western hemisphere. As a consequence, while its general health is second to none in the United States, it was but a natural sequence that an opportunity would be afforded to see a variety of disease conditions only possible in a port of its size. An additional reason has been the fact that Charity Hospital has always been a mecca to which have come sufferers as well as students of medicine. Those who were ill have realized that in this medical center the facilities for relief would be found. Physicians and students in a like manner have always known it as a center of medical knowledge with unsurpassed clinical material.

For one hundred and four years New Orleans has been the home of the School of Medicine of Tulane University, whose graduates have taken their place in the medical profession all over the world. Many of them have made medical history by their scientific achievements and many have become distinguished teachers in medical schools in New Orleans and elsewhere.

Just a few years ago there came into existence the Louisiana State University Medical Center, which has made amazing progress in these few years so that New Orleans now has two well organized, equipped and staffed medical schools.

The success of the New Orleans Graduate Medical Assembly at its initial meeting last year exceeded the most optimistic expectations of its sponsors. This year eighteen physicians of national and international reputation, representing the principal branches of medicine, have accepted invitations to be the guest speakers. They will be as follows:

Dr. Warren T. Vaughan, Richmond.—Allergy; Dr. Pde J. Wile, Ann Arbor.—Dermatology; Dr. Charles Mazer, Philadelphia.—Endocrinology; Dr. Burrill B. Crohn, New York City.—Gastro-enterology; Dr. Norman F. Miller, Ann Arbor.—Gynecology; Dr. Richard P. Strong, Boston.—Medicine; Dr. Sydney R. Miller, Baltimore.—Medicine; Dr. Temple S. Fay, Philadelphia.—Neurology; Dr. William C. Danforth, Chicago.—Obstetrics; Dr. Algernon B. Reese, New York City.—Ophthalmology; Dr. Philip D. Wilson, New York City.—Orthopedics; Dr. Frank R. Spencer, Denver.—Otolaryngology; Dr. Fred W. Stewart, New York City.—Pathology; Dr. A. Frederick M. Hodges, Richmond.—Radiology; Dr. Arthur E. Hertzler, Halstead, Kansas.—Surgery; Dr. Harvey B. Stone, Baltimore.—Surgery; Dr. William E. Lower, Cleveland.—Urology.

A cordial invitation is extended to the physicians of the State of Mississippi to attend the Assembly.

DR. O. J. T. JOHNSON

This is a likeness of Dr. O. J. T. Johnson of Batesville, Ark., president of the Arkansas Medical Society. He is a native of Alabama having appeared on the scene of action in 1883. He is a genial and likeable man full of good cheer. During the World War he served overseas with Base Hospital No. 97. While in service he was commissioned as Captain. He has been very active in organized medicine. He is surgeon to Johnson and Craig hospital in his home town and has been for many years has carried his patriotism into his citizenship and his practice as he did into the war.

LETTERS TO THE EDITOR

Dr. W. H. Anderson
Booneville, Miss.

Dear Dr.:

The General Committee on arrangements of the Central Medical Society is active and working in anticipation of the State Meeting April 19th, 1938.

The committee on Scientific Exhibits is very anxious to get before the medical profession the fact that a beautiful award will be made to the best scientific exhibit and desire that those who are interested please get busy and prepare the exhibits for use at this meeting and believe that there will be more than some of us expect. Regardless of how small they may be or how large, they ask that they be notified when possible in order to prepare space for them.

Reservations for hotel accomodations can be secured through Robin Harris, chairman. The headquarters will be at the Robert E. Lee Hotel.

D. W. Jones is in charge of he commercial exhibits and many places are taken already and the Roof Garden will be used entirely for these spaces and we expect it to be full and are assured of a variety that will interest us all. Attention is called to all those interested to write him at Tower Building, Jackson, Miss., now.

George Owen is making all necessary arrangements for round-table luncheons as soon as the committee of the State Medical Association has decided what luncheons and who will hold them.

T. E. Wilson will arrange for management of the lantern slides and motion pictures with personel to run them.

Transportation to and from all events will be arranged at such times as needed by Dr. L. B. Moseley.

At the registration booth will be a table for registration at the events in the Golf Tournament, J. W. Barkesdale, chairman; Rifle Contest, George Adkins, chairman; Fishing Contest (Fly and Bait Casting), N. F. Kendall and R. W. Hall, chairman and Skeet Contest, J. F. Armstrong, chairman. A great majority of those present will be expected to attend and furnish the committees with their listed handicap.

The Entertainment Committee has some very agreeable surprises in store for the night entertainment of the members which will be enjoyed by all.

The cooperation of the members of the State Association is anticipated in carrying out all the above features.

Cordially yours,
Lawrence W. Long, M.D.

Dr. W. H. Anderson, Editor,
The Mississippi Doctor
Booneville, Miss.

Dear Dr. Anderson:

I have been using a test for cancer for some time that has been a valuable aid to me in making an early diagnosis, and I am enclosing instructions on how to make the test, so that if you care to print it in *The Mississippi Doctor* you may do so. Some of our friends may care to use the test. After making the test we find that all cancers have uncrenated blood cells, therefore this test has a value.

Directions for making the test:

Take a red counting pipette, draw patient's blood up to mark 1, and Sickler's Solution up to 101. Mix well. Put drop of dilution into counting chamber. Count one hundred cells. Make notation of crenated cells and notation of uncrenated cells. For instance, if you count eighty-five crenated cells and fifteen uncrenated cells, you have a report like this, eighty-five crenated cells and fifteen per cent uncrenated cells. This is the differential count.

All cancers show some uncrenated blood cells, however, all cases of illness that show a few uncrenated cells are not cancers. A high percentage of uncrenated cells indicates that cancer is far advanced. A few uncrenated cells may indicate that the cancer is present but has not developed to the point where it may be recognized.

Thanking you in advance for publishing this test, I am,

With best wishes,

Your friend,
L. B. Austin, M.D.

Try Dr. Austin's test. See if your findings are as his. Thank you, Dr. Austin.—Ed.

LIST OF EXHIBITORS FOR MID-SOUTH

R. B. Davis Company, Hoboken, N. Y.; Scientific Sugars Company, Indianapolis, Ind.; Schering Corporation, Bloomfield, N. J.; J. A. Majors Company, 1301 Tulane Ave., New Orleans, La.; Merck & Company, Inc., Rahway, N. J.; Wm. S. Merrell Company, Cincinnati, Ohio; Drug Products Company, Inc., 26-32 Skillman Avenue, Long Island City, N. Y.; Rare Chemicals, Inc., Nepera Park, N. Y.; The Foregger Company, Inc., 47 West 42nd Street, New York City, N. Y.; Hynson, Westcott & Dunning, 58 E. Washington St., Chicago, Ill.; Aznoe's National Physicians Exchange, 30 N. Michigan Ave., Chicago, Ill.; The Borden Co., 350 Madison Ave., New York City, N. Y.; C. V. Mosby Company, St. Louis, Mo.; Jones Metabolism Equipment Company, 1879 Ogden Avenue, Chicago, Ill.; Libby, McNeil & Libby, Union Stock Yards, Chicago, Ill.; Bard-Parker Company, Inc., Danbury, Conn.; A. S. Aloe Company, 1819 Olive St., St. Louis Mo.; Gerber Products Co., Fremont, Michigan; E. R. Squibb & Sons, 745 Fifth Ave., New York City; Mellins Food Company, Boston, Mass.; Southern Surgical Supply Company, 893 Madison Ave., Memphis, Tenn.; DeVilbiss Company, Toledo, Ohio; H. J. Heinz Company, Pittsburgh, Pa.; Massey Surgical Supply, Inc., Bennie-Dillon Bldg., Nashville, Tenn.; Heidbrink Company, 2633 Fourth Ave., South, Minneapolis, Minn.; Puritan Gas Corporation, 2012 Grand Avenue, Kansas City, Mo.; J. B. Lippincott Company, East Washington Square, Philadelphia; Wholesale Surgical Splint Company, 25-37 Broad St., Memphis, Tenn.; Lederle Laboratories, Inc., 30 Rockefeller Plaza, New York City; Abbott Laboratories, North Chicago, Ill.; The Mennen Company, 345 Central Avenue, Newark, N. J.; Dick X-Ray Company, Medical Arts Bldg., Memphis; Petrolagar Laboratories, Inc., Long Island City, N. Y.; Arlington Chemical Company, Yonkers, N. Y.; H. G. Fischer & Company, Inc., 2323 Wabansia Avenue, Chicago, Ill.; John Wyeth & Brothers, Philadelphia, Pa.; Cameron Surgical Specialty Company, 666 W. Division St., Chicago, Ill.; The Doak Company, 2132 East 9th St., Cleveland, Ohio; Ohio Chemical Company, Cleveland, Ohio; Sandoz Chemical Works, Inc., 61-63 Van Dam St., New York City; Pet Milk Sales Corp., St. Louis, Mo.; White Laboratories, 113 N. 13th St., Newark, N. J.

E. L. Mercere Co., 191 Madison Avenue, Memphis, Tenn.; Bilhuber-Knoll Corporation, 154 Ogden Ave., Jersey City, N. J.; General Electric X-Ray Corporation, Sterick Bldg., Memphis, Tenn.; Richards Manufacturing Co., 756 Madison Ave., Memphis, Tenn.; Mead Johnson Company, Evansville, Ind.

The above list of exhibitors are a tribute to Dr. Gilbert Levy who has had charge of the exhibits for many years has steadily increased the number. The exhibitors have played a big part in building the Mid-South, helping to finance it and to remind the doctors to attend. They should be and are as a rule working hand in hand with the medical profession. You may learn much from them during the convention. Visit their booths and tell them you appreciate their cooperation. We congratulate Dr. Gilbert Levy and we appreciate his fine work for the Mid-South Postgraduate Medical Assembly.

DR. A. F. COOPER

Dr. A. F. Cooper, the veteran Ph.D., secretary Mid-South Postgraduate Medical Assembly, a perfect actor in all the fine arts of the profession.

COMING MEDICAL MEETINGS

Mid-South Postgraduate Medical Assembly.—February 15, 16, 17, 18, Memphis, Tenn.

Tennessee State Medical.—April 12, 13, 14, Nashville, Tenn.

Arkansas State Medical.—April 18-29, Texarkana, Ark.

Mississippi State Medical.—April 19-21, Jackson, Miss.

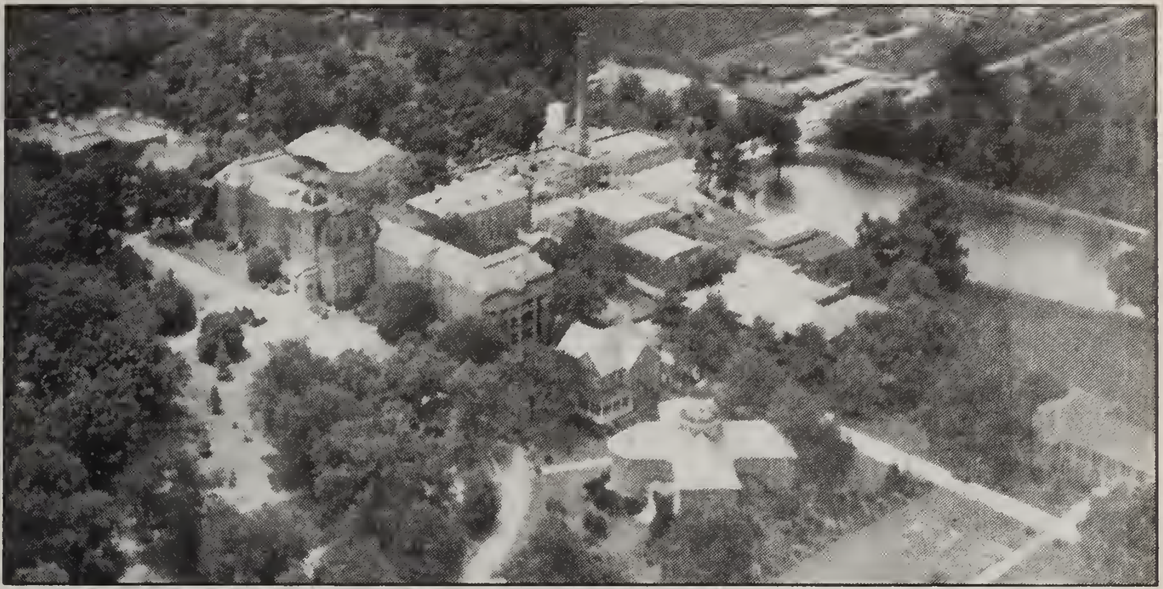
Louisiana State Medical.—April 25-27, New Orleans, La.

Southern Railway.—May 3, 4 and 5, New Orleans, La.

American Medical Association.—June 13-17, San Francisco, Cal.

Southeastern Surgical Congress.—March 7, 8, 9, Louisville, Ky.

EAST MISSISSIPPI STATE HOSPITAL Meridian, Miss., Lauderdale County



The East Mississippi State Hospital at Meridian, Miss., was established by an Act of the Mississippi Legislature of 1882, and was opened for patients in January of 1885. Dr. C. A. Rice was the first superintendent and served for five years when he was suceeded in 1890 by Dr. J. M. Buchanan, as superintendent who served continuously until 1918, when he was succeeded by Dr. M. J. L. Hoye, who served until the early part of 1934. He was succeeded by Dr. R. R. Welch, who served until June 1, 1936, when he was succeeded by Dr. J. S. Hickman, who is the present superintendent.

This hospital consists of seventy-one buildings. This serial view cannot give all the buildings, as noted by the above. From the main gate on the Asylum Road at 20th Street, the general grouping of the buildings presents a semi-circle with the main, or Administration building in the center, flanked on the visitor's right by Cottage C and hothouses, and on his left by Cottage B, the Woman's Annex and Hospital, all facing the scenic drive, and the other buildings facing other drive-ways beyond them.

All buildings occupied by patients are bordered by deep-screened verandas from which debauche two types of fire-escapes. The buildings, with the exception of the Administration Building and Cottage C follow the modern straight lines of architecture. The dining rooms have tiled floors.

The grounds comprise 642 acres of which about 500 acres are cultivated in farm produce, worked by employees assisted by such patients as it is deemed would benefit by exercise of this nature.

The Following Crops Were Harvested From the Farm In 1937

All the okra that could be used by the institution and 500 gallons canned for soup; 1200 gallons of strawberries; mustard and turnip greens all the year and have 30,000 lbs. of turnips banked for winter use. We also have an abundance of rutabagas for winter use; have had all the cabbage that could be used by the institution and have 1200 gallons of kraut for winter use. All this canned for winter use comprises a surplus that would have been otherwise wasted had it not been canned. All the tomatoes that could be used and 3,200 gallons canned for winter use; all the string beans that could be used through the year, and 1200 gallons canned for winter use; cucumbers all during the season, and 100 gallons pickled; peppers for table use during season, and 85 gallons of sauce for table use this winter; all the radishes that could be used during the season for table use. Four acres of English peas that produced well; raised and served 12,000 watermelons, 4000 cantaloupes; all the beets that could be used; plenty of onions for table use, and all the green peas that could be used for the table, and have thrashed 175 bushels of dry peas for winter use; we have three acres of collards for winter—all these plants were germinated in the hospital hot-beds; now have four acres of seven-top winter greens ready for use; raised 2,000 bushels of Irish Potatoes and 10,000 bushels of sweet potatoes, and have 400 bushels banked for slips for the crop next year. Grew cane to make 2,300 gallons of Louisiana Blue-Cane syrup, and 1,000 gallons of seeded Blue-Cane syrup; now have more cane banked for seed for another year, than usual; have 200 bushels of sorghum seed for the next year's crop; grew 2,000 bushels of corn; 800 bushels of oats and now have some twenty odd acres planted in oats and expect to plant forty acres more. We have two hundred tons of silage, but only raised 35 tons of hay.

Live-Stock Department

Swine: We now have 190 head of hogs and will butcher 100 head for winter consumption. Many of the hogs are thorough-bred Duroc Jerseys.

Poultry: We have raised 10,000 chickens and now have around 6,000 laying hens. The poultry department has been improved by putting in a 10,000 capacity incubator and sufficient brooders to take care of all the chickens that can be hatched in this incubator. 800 young peach and fig trees have been set on the poultry farm in 1937.

There are now 132 head of dairy cattle, and there has been a check-up test made by the Federal Live-Stock Association which shows them to be clear of Bang's disease. Seventy odd head have been butchered since the present administration took charge. The recent check shows the herd free from this disease. About 65 per cent of this herd is Jerseys and 35 per cent Holsteins, many of these coming from the finest strains in the country.

Improvements

Improvements around the buildings and grounds comprise about 35 acres, beautifully landscaped, with graveled drives and concrete walks, grottos of native rock, shaded by weeping-willows, rustic, bridges, swings and seats, artistically planned lily ponds, virgin water oaks and pines, and an extensive collection of native shrubs and trees. Conspicuous among these are many huge Southern Magnolia trees. This entrance is flanked on the visitor's right by seven acres of flower gardens whose perennials are kept in perpetual rotation, surrounding the hot-houses. Glancing the entrance to the main building are three giant Japanese Magnolia trees, said to be the largest in the United States; usually in full bloom during the month of February, according to the condition of many particular seasons. Other flower-beds of rotating bloom, border the semi-circle of buildings. At the rear of the buildings, behind the main build- for evening recreation, a lake 185 feet by 690 ing, are an out-door swimming pool, lighted feet, well stocked with fish. This basin was formed by the excavation of clay used in building one of the units. Although of artificial formation, this excavation tapped several springs which supply water to the lake. On this portion of the grounds is also beautiful pecan trees and about 200 bushels of pecans are harvested each year from them.

The orchard of the Hospital consists of about 2,000 peach trees; 600 pears trees; 300 apple trees, and 100 fig trees, and these produce extra well most of the years. The fruit from the orchard is given to the patients and the surplus is canned for winter use.

In addition to the lands owned by the institution, nearly 300 acres are loaned by the Key Aviation Field for farming. Many tons of hay will be harvested in 1938 just for keeping the field clean.

The institution will accomodate 900 patients. There are 100 employees. The Hospital serves white people entirely, at 46.7 per capita per patient per day during the present administration; however the treatments are in keeping with all the later psychiatric hospitals.

It serves many of the central counties and a greater number of the eastern counties, extending from the north to the southern boundaries. It is located on Highway 80, which is paved east and west; also Highway 45 which is paved north and south.

The visitor entering the Administration Building is greeted by a tablet bearing this inscription:

"THIS IS A HOSPITAL DEDICATED BY THE STATE OF MISSISSIPPI TO THE WELFARE OF ITS PEOPLE FOR THEIR RELIEF AND RESTORATION; FOR THE HEALING OF MIND, BODY AND SPIRIT, WHERE MANY FIND HEALTH AND HAPPINESS AGAIN."

(Information for this article was furnished by Dr. J. S. Hickman, General Superintendent of the East Mississippi State Hospital, Meridian, Mississippi.

DR. PERCY WALL

This is the likeness of Dr. Percy Wall, of Jackson, who has been speaker of the house of delegates of the Mississippi State Medical Association for a number of years. He is a fine parliamentarian, fair and impartial and well informed on the rules of order. Dr. Wall is widely read and is versatile. He is one of the outstanding orators of the medical association. He is not only a leader in organized medicine, but he is a progressive citizen and active in church work as a deacon.

He entered the Army as 1st Lieutenant and was discharged as a Major. He was the first commander of the American Legion in Mississippi, Jackson Mississippi Post.

Dr. Wall is a native Mississippian, born in the town of Magnolia some little time ago, but not too long. He is a graduate of Millsaps College, was a teacher for several years, high school principal. He was an outstanding scholar at Columbia University where he was graduated in medicine in 1907. He spent two years at Bellevue Hospital and holds licenses in New York as well as in Mississippi.

Doctor Wall is not only active in organized medicine in Mississippi, the Southern States and the A. M. A., but he is now vice-president of the Mississippi Hospital Association. His accomplishments are multiplied and outstanding, but the greatest of all he achieved in 1931 when he won the hand and heart of Miss Sara Ann King.

At the recent meeting of the Northeast Mississippi 13-County Medical Society he delivered an address on Pasteur, the father of Modern Preventive and Curative Medicine. It was a masterpiece and we hope to give it to our readers later. Our state association appreciates this brilliant and active member.

BOOK REVIEWS

Shadow on the Land: Syphilis.

Our Surgeon-General of the U. S. Public Health Service, the able Dr. Thomas Parran, along with his campaign against syphilis, has written one of the most informative stories of this great killer that is available. Taking for his readers the laity as well as the medical profession, Dr. Parran begins in a straightforward fashion tracing the history of the disease, producing excerpts from literature that show pathetic proof of the early ravages of the disease. Showing its contagious character and how, because the disease has too long been associated with sinfulness, its toll is more than scarlet fever, twice that of tuberculosis, a hundred times that of infantile paralysis, striking one out of every ten persons over the nation, Dr. Parran makes an appeal for open-mindedness and a sane acceptance of syphilis as a major public health problem. He believes through correct education that the American people will react as favorably to a campaign for the eradication of syphilis as they do for infantile paralysis or tuberculosis. He shows that fifty per cent of all the infections are acquired innocently, that it is necessary for the patient to have treatment in the early stages to insure a cure, and that a prescribed number of treatments only will effect a cure.

Shadow on the Land is so thorough and so readable an exposition of syphilis as a public health problem it is recommended as greatly for the laity as for the profession. Only a nation-wide cooperative effort to make syphilis the next great plague to go can remove this darkest shadow from our land.

Published by Reynal & Hitchcock, Inc., 386 Fourth Avenue, New York City. Price $2.50.

As the title implies, *Operative Gynecology*, out in the new fifth edition by Crossen and Crossen, is devoted exclusively to operative treatment. The technique, difficulties encountered, indications for operation and operative procedure are all detailed so as to carry out the dominant idea of the work—selective treatment. This most important idea, that no one operative procedure can be the best for every case of a particular gynecologic lesion, is thoroughly elucidated in the detailed study of the many pathological conditions present in the pelvis in different cases of a disease, showing that conditions differ greatly in different cases of the same disease.

Through the various considerations given space in the book the authors endeavor to prepare the conscientious surgeon to answer the three major questions he asks himself as he sets about to do his best for the patient: **Is operation needed? What operation should be selected? What is the best before and after operation care?**

Throughout the book are illustrations to make ideas quite clear. There are 1076 pages, including the index, of this exceptionally fine work. Especially noteworthy are the chapters on retrodisplacement and prolapse of the uterus and bladder. We approve the authors, Dr. R. J. Crossen, and Dr. H. S. Crossen· both of the Washington University School of Medicine, St. Louis, Missouri, who are trying "to push the fight against disease by presenting the advances of surgery as applied to the relief of gynecologic diseases in a way which will give practical aid to the surgeon seeking help on these problems."

Operative Gynecology is published by C. V. Mosby Company, St. Louis, Mo., at the very reasonable price of $12.50.

Dr. Leland E. Hinsie, Professor of Clinical Psychiatry at Columbia University, presents some important advances in his book *Concepts and Problems of Psychotherapy,* published by the Columbia University Press. Perhaps in no field of medical science has there been more need for advance than in the pathology of the mind. The author attempts in this volume to indicate the prevailing conceptions respecting the structure and functions of the mind. He intends to give a clear guide to the doctor who has not had the recent advantage of thorough training in the therapy of psychiatric disorders. Because of an increasing number of psychoneurotic patients appealing to the practitioner for treatment, and because of the likewise large group of psychoses, Dr. Hinsie invites the frank investigation of the most modern methods of psychotherapy, insisting that it plays "a definite part in all walks of life. The physician, psychologist, lawyer, clergyman, educator, executive, parent—all share in the problems caused by mental disorders and their treatment." And there is a growing responsibility placed upon this field that cannot be overlooked by every man in medicine.

The book is easy to read because of the concise manner the author takes up his discussions. There are only 199 pages, including the index. The main divisions of the contents are:

1. Extent and Nature of Psychotherapeutic Problems; 2. Psychoanalysis: Freud; 3. Psychobiology: Meyer; 4. Individual Psychology (Adler) and Analytical Psychology (Jung); 5. Statistical Evaluation of Psychotherapeutic Methods, by Carney A. Landis, Ph.D., Assistant Professor of Psychology, Columbia University.

The Abraham Flexner Lectures. Series Number Five, are just off the prass, published by The Williams and Wilkins Company, Baltimore, Md. The price is three dollars. The lectures are on the epidemiology and control of syphilis, tuberculosis and whooping cough, and other aspects of infectious diseases, given by Dr. Thorvald Madsen, director of the State Serum Institute of Denmark, Copenhagen, chairman of the Health Committee of the League of Nations. For thirty years he has been director of the Serum Institute of Denmark. He has written more than a hundred articles for scientific journals largely in the field of immunology.

This lecturership was founded in honor of Abraham Flexner because of the great work he did for the Carnegie Foundation, established at Vanderbilt University. You will read with much interest in the introduction of this book what Dean W. S. Leathers and Chancellor Kirkland have to say about its foundation and about Doctor Madsen.

In the course of lectures Doctor Flexner takes up the control of venereal diseases in Denmark with special reference to syphilis. He discusses the subject in a comprehensive manner, giving special attention to the mechanism of infection. He follows with a full discussion of tuberculosis and whooping cough in Denmark and other infectious diseases. Dr. Madsen discusses the control and prevention of the diseases, how they spread, the influence of season upon them, et al. Every doctor who is interested in medicine should certainly read this book, and should study it carefully. It is of special interest at this time because of the wonderful dissertation on the control of syphilis. The Williams & Wilkins Company, Baltimore. Price $3.00.

DR. JOHN CHARLES HENTHORNE

Dr. W. H. Anderson, Editor
The Mississippi Doctor,
Booneville, Mississippi.

Dear Dr. Anderson:

Dr. Garrison has just telephoned me asking me to send you some information about Dr. J. C. Henthorne, the pathologist who is now connected with the Baptist Hospital. I am enclosing two letters which we have received concerning Dr. Henthorne, from Dr. A. C. Borders of the Mayo Clinic. As you know, Dr. Borders is probably the most distinguished pathologist in the world and the best known. Dr. Borders states that Dr. Henthorne is an exceptionally well qualified pathologist.

The hospital pays Dr. Henthorne and furnishes him an office, two assistants and pays all the expenses of his laboratory and office. In addition, they allow him the privilege of doing private pathological practice. I think he will not only be a great boon to the Baptist Hospital in Jackson, but to all the other doctors and hospitals in this vicinity. He can give a pathological report on any tissue within five minutes. We have found his work entirely reliable.

For this private service to patients outside of the hospital, he proposes to charge $5.00 for examination of the tissue, when the patient is able to pay, and will be glad to make the examinations, making no charge, when the patient is unable to pay. Doctors need have no hesitancy in sending in tissues for examination from their charity patients. He will be guided entirely in making charges by the instructions he receives from the doctor who sends in the tissue.

For the past two years, in addition to doing this tissue work, Dr. Henthorne has performed very many of the postmortem examinations that are performed in the Mayo Clinic. He is much interested in this work and of course does it quite expertly. He is anxious to be of as much service as possible to the doctors and citizens of Mississippi. In case any doctor away from Jackson wants a postmortem examination performed, Dr. Henthorne will be glad to come and do it free of charge except for a charge of ten cents a mile to pay his expenses. He is very much interested in scientific medicine.

In my humble opinion nothing has happened in a medical way in the State of Mississippi in the last few years which will be of greater advantage to the doctors in Mississippi than the settling in Jackson of Dr. Henthorne.

We will all greatly appreciate your kindness in giving whatever publicity you think wise in your excellent magazine to Dr. Henthorne's change of residence from Rochester, Minn., to Jackson, Miss.

With all good wishes, I beg to remain

Your friend,

H. R. Shands, M.D.

Excerpt of letter from Dr. A. C. Borden, of Mayo Clinic, one of the greatest pathologists in the world.

John Charles Henthorne, aged twenty-nine years, a native of Pennsylvania, B.S., M.D., University of Pittsburgh, served his internship at St. John's Hospital, Pittsburgh. He received his M.S. in Pathology, University of Minnesota, December, 1935, and was certified through examination by the American Board of Pathology at the Philadelphia meeting past June. Dr. Henthorne entered the Mayo Foundation as a fellow in pathology, October 1, 1932. His services included: clinical pathology with Sanford and Magath, six months; surgical pathology with MacCarty, three months; surgical pathology with me, six months; general pathology with Bell, University of Minnesota, three months; pathologic anatomy with Robertson, forty-two months, twelve months as a fellow, twelve months as first assistant to Dr. Robertson and eighteen months as consultant in his department.

Dr. Henthorne married Miss Helen Clark, of Texas, granddaughter of Randolph Clark, founder of Texas Christian University, Dallas. Mrs. Henthorne's brother, Dr. Lee Clark, is first assistant to Dr. Dixon of our surgical staff.

PROTAMINE ZINC INSULIN SQUIBB

Physicians will be interested to know that protamine zinc insulin Squibb is now available in two strengths, 10 cc. vials of 40 units per cc. and 10 cc. vials of 80 units per cc.

Protamine zinc insulin has been available in the 40-unit strength since February 1, 1937. It was felt, however, that a higher potency was also needed for the many diabetics who require large amounts of insulin daily.

While the efficiency of the two strengths of protamine zinc insulin may be identical, the transfer of a patient from one strength to the other should be made only under the careful supervision of a physician until more experience has been accumulated.

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

How is the General Practitioner to Diagnose Food Idiosyncrasies?*

WILLIAM CALVERT CHANEY,
M.D., M.S. in Medicine, F.A.C.P.,
Memphis, Tenn.

If the general practitioner is not familiar with the very important part that foods may play in numerous diseases he is losing a great opportunity to solve many medical problems. Indeed, food allergy—if that term may be used interchangeably with food idiosyncrasies—must be considered as a possible factor at times in almost every specialty in medicine. At this point it should be made clear that food allergy is a much more comprehensive term than gastro-intestinal allergy. Gastro-intestinal allergy refers to either food or drugs that may bring about disturbance in the gastro-intestinal tract of an allergic nature while food allergy refers to any allergic phenomenon in any of the organs or tissues of the body that is caused by food.

Foods may be entirely or partly responsible for allergic phenomena in the respiratory tract—such as asthma, hay fever, perennial hay fever or winter colds; or in the gastro-intestinal tract, such as so-called mucous colitis, cyclic vomiting in children, various types of colitis, symptoms, such as abdominal pains and diarrhea; or on the skin as urticaria, eczema, angioneurotic edema, and certain types of dermatitis, or in the nervous system, such as migraine and a very occasional case of epilepsy.

In this day and time it is not necessary to go further to convince the physician that there is such a thing as "food allergy." He is willing to accept the time honored adage that: "One man's meat is another man's poison." Or as Balyeat has said: "By 'Holy Writ' man shall not live by bread alone. However, the smallest quantity of wheat may produce asthma, hives, migraine, etc."

In discussing food allergy one must not conclude that the identification of the foods that are factors in certain diseases entirely solves all problems of allergy. Indeed the truth is oftentimes quite to the contrary, for foods may play a very minor role in many cases. In seasonal hay fever, for example, nearly the whole story is pollen sensitivity. Certain foods do at times seem to make the symptoms worse. Asthma in young children may be due entirely to food sensitivity, but as the child reaches the age of five or older, the inhalants are of much greater importance. In so-called acute hives foods are usually responsible, such as the "strawberry rash" and other familiar examples, but, contrary to popular belief, chronic hives are more frequently caused by drugs than by foods.

To deal successfully with problems of allergy it is not necessary that the physician know all of the million and one possibilities that could cause certain phenomena of allergy. For example, the child who had a violent attack of asthma following the licking of a postage stamp was allergic to fish, because the glue on stamps is made from fish. People who are sensitive to peanuts frequently can not eat peas, because both foods belong in the same botanical group—the legumes. An asthmatic who is sensitive to eggs may have an attack from drinking root beer or eating bread made with certain baking powders—for eggs are found in both of these products. I will not go into this further, except to say that the real "headache" in allergy is remembering the many foods that may contain wheat, or soybeans or cotton seed oil. A physician who knows all the foods that may contain one of these three products can justly be as proud among his fellow allergists as the French student who really knows his irregular verbs.

Many papers dealing with the various procedures by which the foods that are factors in allergy are identified are rather vague in that they assume the reader is already familiar with the more trustworthy methods. The seeming vagueness is also due in part to the fact that we really have no one very satisfactory method for picking out the offending foods. In the problem of identifying the harmful foods, we have at our disposal five methods of approach: 1. a carefully taken history; 2. skin tests (scratch and intracutaneous); 3. elimination diets; 4. diet diary; 5. leukopenic index. In my opinion these methods are listed according to their value.

---

*Read before the Gulf Coast Clinical Society, Biloxi, Miss., Nov. 3, 1937.

In allergy, as elsewhere in medicine, a carefully taken clinical record is of very great value. If the patient is having attacks of severe headache, for example, and there are members of the family who have hay fever or asthma, there is a strong probability that allergy is a factor in the headache. Many patients know that some foods they eat always cause a certain distress.

Skin tests are of great value. The reactions have a meaning, but our interpretation of them is at times faulty. The physician who relies entirely upon skin tests for making his diagnosis, however, is certainly doomed to much disappointment, for in reality he has only scratched the surface of his subject. A diet diary is of value in some cases, especially if the patient has a mathematical turn of mind. These patients make lists each day of the foods they have eaten. They will soon have enough data to enable them to make long lists of foods eaten for two days preceding an attack. By comparing several of these lists for two-day periods they will find that there are three or four foods that are present in all of them. When these foods are excluded from the diet the patient will probably be free of symptoms.

In my opinion the leukopenic index has so far been of very little value. The reason for this is that it is so very difficult to interpret the results obtained. Under normal conditions the leukocyte count goes up and down as much as 2000 cells without any apparent reason. Besides, there are so many known factors that will influence the total number of these cells.

But while we are discussing various methods of procedure in food allergy, our patient, whom we will say has a generalized pruritus, is itching to know what foods should be omitted from his diet. While in this particular condition drugs are a more likely cause than foods, we must exclude from the diet certain foods that may be quite important. On the desk before the physician there should be at least five separate lists of foods: A, B, C, D and E. List A contains all of the foods that make up a well balanced diet, one that will provide the necessary protein and also supply the required vitamins and minerals. B is a list of foods that very rarely produce allergic disturbances. C is a list that is just the opposite of list B in that it contains the foods experience has taught are the principal offenders. List D is made up from information obtained from the patient's history and finally E is the list of those foods that gave positive reactions to the skin tests.

One of the biggest mistakes that most allergists make is that they send their patients home on a diet that contains almost nothing that the body needs for health. It is true that in most instances these patients are asked to return for further consideration, but in many cases they continue on a diet that a giraffe, which has an intestinal tract one hundred times the length of his body, would have trouble digesting.

Diet A, the well balanced diet, should always be before the physician so that he will have a large number of foods from which to make up the patient's diet.

If lists E and D, (made up from the history and the skin tests), are placed under diet A, the foods that are thought to be harmful can be removed from diet A and the necessary substitutes added so that the patient can still have foods to meet body requirements. In adding foods to a diet it is always well to choose foods from list B and stay away from foods in list C.

But suppose the physician can not have the food tests put on his patient, how is he then to exclude from the diet the foods that cause the trouble? This next method must of necessity be one of trial and error. Again diet A, the perfect diet, must be kept in mind. This diet must be made up of foods that do not as a rule produce allergic disturbances. (See list B and consult other similar lists by Alvarez and Rowe). Foods that are known to cause trouble, according to the history, must be left out. If the patient continues to have his ailments after a trial of ten days or two weeks, this perfect diet should then be divided up into three trial diets of let's say ten foods each, having each one as nearly perfect as possible. He should try each of these for one to two weeks until he is free of his complaints. With this small list of foods as a nucleus, he should add one nourishing food every three days, being sure to eat an abundance of this food during that time. When a food is added and the patient's symptoms return, it is very obvious that one offender has been found. In a similar manner other foods may be excluded while the patient is steadily building his diet back to the one that supplies all of his needs.

The third approach to this difficult problem of identifying the foods responsible for the patient's allergy has already been discussed. It is the procedure known as the diet diary.

The more deeply the physician goes into this problem of food allergy the more valuable he will find it in helping him to solve many of his medical problems. Just how many people are affected unfavorably by certain foods is difficult to say at this time. Rowe believes that as many as 30 per cent of people suffer from food allergy. The exact incidence of food allergy is indeed difficult to determine until we have more data as valuable as that contributed by Rowe. In dealing with this problem of food allergy as well as with allergy in general we should think long and hard before drawing any conclusions. It is so very easy to be wrong and so hard to be right that we must be cautious in coming to the conclusion that the patient's condition is on an allergic basis. A pain in the abdomen is still an appendicitis until you can prove that it is not. Remember that it is better to take out an appendix that is almost normal than it is to bury an allergic stomachache.

ALLERGY MAY BE A FACTOR IN THE FOLLOWING

Asthma
Urticaria
Angioneurotic edema
General pruritis
Eczema
Vasomotor rhinitis
Chronic rhinitis
Recurring bronchitis
Hay fever
Migraine
Canker sores
Mucous colitis
Other intestinal diseases
Meniere's syndrome
Vernal conjunctivitis
Epilepsy
Arthritis

METHODS FOR DETERMINING THE OFFENDING FOODS LISTED IN ORDER OF THEIR VALUE

1. History
2. Skin tests
3. Elimination diets
4. Diet diary
5. Leukopenic Index

(All methods are necessary in some cases)

A. A well balanced liberal diet, fulfilling all body requirements

B. List of foods that **rarely** cause allergic conditions

C. List of foods that **frequently** cause allergic conditions

D. List of foods that the patient thinks will cause trouble (history)

E. Foods that are definitely positive by skin tests

(Ultimate aim is to get patient on diet A)

Plan I: A—(E+D) equals a trial diet for 10 to 14 days. If symptoms are relieved, add foods from B then, add foods from A that are not in D or E. (In adding foods, add one food in large quantities every 3 days).

Plan II: Diet B—D equals a trial diet for 14 days. If symptoms are relieved add foods from A, omitting those listed under D.

Plan III: Diet Diary, using diet A—C.

A. A WELL BALANCED LIBERAL DIET

Butter
Cream
Milk
Eggs
Meats
Liver
Bread
Fruit juices
Potatoes
Spinach
Peas
Carrots
Tomatoes
Raw cabbage
Lettuce
String beans

B. FOODS THAT RARELY PRODUCE ALLERGIC CONDITIONS

(Elimination diet)

1. Lamb
2. Chicken
3. Butter
4. Cane sugar
5. Tea
6. Corn
7. Barley
8. Arrowroot
9. Tapioca
10. Lima beans
11. String beans
12. Pears
13. Pineapple juice
14. Beets
15. Asparagus
16. Sweet potatoes
17. Eggplant
18. Turnips
19. Parsnip
20. Pumpkins

C. FOODS THAT FREQUENTLY PRODUCE ALLERGIC CONDITIONS (ROWE)

1. Wheat
2. Eggs
3. Milk
4. Chocolate
5. Cabbage
6. Tomatoes
7. Oranges
8. Walnuts
9. Strawberries
10. Bananas
11. White potatoes
12. Cauliflower
13. Oats
14. Pork
15. Carrots
16. Rice
17. Oysters
18. Salmon
19. Celery
20. Lettuce

BIBLIOGRAPHY

1. Alvarez, W. C. and Hinshaw, H. C.: Foods that Commonly Disagree With People, J. A.M.A. 104: 2053-2058 (June 8) 1935.
2. Bowen, Ralph: Personal Communication.
3. The Leukopenic Index and Food Allergy, Editorial, J. A.M.A. p. 1988 (June 6) 1936.
4. Rowe, A. H.: Gastro-Intestinal Allergy, The Journal-Lancet (March) 1936.
5. Tuft, L.: Clinical Allergy, Philadelphia, W. B. Saunders Company.

20 South Dunlap Street

Cancer of the Rectum*

WILLIAM D. HAGGARD,
M.D., F.A.C.S., D.C.L.,
Professor of Clinical Surgery, Vanderbilt University School of Medicine, Surgeon to
St. Thomas Hospital,
Nashville, Tenn.

Cancer of the rectum presents the paradoxical situation that it is the hardest disease to diagnose by symptoms that we have and the easiest diagnosis to make with a careful examination. The deduction from this obvious and frequently proven axiom is that routine examinations of the rectum should be made in every patient applying for treatment for any condition whether there are rectal symptoms or not. Any physician and all surgeons can attest to the wisdom of this highly-to-be-desired practice. It is not uncommon to see the record of a very thorough examination of the mouth, teeth, eyes, throat, thyroid, chest, abdomen, uterus, urine, blood, blood pressure, heart, lungs, and every other organ except the rectum. We have made it a routine in our clinic since the mortifying experience of having had one patient some years ago with a large goiter, who, when we ascertained was a satisfactory risk for the operation, performed it without difficulty and within five months, much to our great chagrin, the patient returned with an inoperable carcinoma of the rectum which, while symptomless at the time of the goiter operation so far as the patient knew, could have been diagnosed then as it certainly was in existence and perhaps could have been treated successfully. Examples of this sort could be multiplied.

We are not alone in having made this error. Roughly speaking, about ten per cent of people who are finally operated on for cancer of the rectum have been operated on for hemorrhoids. About 75 per cent of people who are operated upon have had operations for other conditions while subsequent history showed that they had cancer of the rectum at the time. The surgeon at least should assume that everybody who has any rectal symptoms whatever has cancer of the rectum until they come into the court of scientific inquiry to show cause why they have not cancer.

Inasmuch as the symptomatology of many rectal diseases is scarcely to be differentiated, the inviolate rule should be made after a thorough-going and careful history is taken, to make the ordinary, routine examination of the rectum. Usually, a digital examination is all that is necessary. Seventy-five per cent of the cancers of the rectum can be diagnosed with a digital examination. It is almost as easy to proctoscope a patient as it is to make an instrumental examination of the vagina and should be done if the rectal palpation is entirely negative and particularly if there are any positive rectal symptoms whatsoever.

Since most cancers of the rectum have bleeding at some time and usually early, the great trouble is that the patient and, I regret to say, often the physician, as well, consider them to be hemorrhoids.

I think that you will agree that no treatment should be given for hemorrhoids without visualizing them as we do not usually prescribe for any disease without a thorough examination.

External hemorrhoids can be seen but not internal. The simplest and best way is to have the patient take an enema or a glycerin suppository and strain down over the toilet or slop jar. They can often expel internal hemorrhoids without any enema or suppository. Seeing is believing. The ordinary examination with the finger will find the hemorrhoids flattened out and difficult of detection. They should be seen and made to protrude and thus seen. The routine examination of course would determine any and all other sources of rectal pathology. The great majority of cancers of the rectum can be recognized by the touch and the sight. If there is any doubt in the examiner's mind, and sometimes as a routine a specimen of the growth should be removed and subjected to pathological examination. The early diagnosis or its failure has to be made by the general practitioner. The patient rarely consults the surgeon and still less rarely a specialist, if available. Any good doctor could make the diagnosis. The trouble we have ever had is in neglecting to make a routine rectal examination.

Although a cancer may occur at any age, the great majority of the cases occur from 40 up to 70. Probably 90 per cent occur when the patient is past 40. I encountered three cases in persons below 26.

ETIOLOGY. We believe that local irritation is the determining cause of cancer in most places in the body. This is borne out by many observations from the mouth to the anus. No one ever sees cancer on the soft, satiny skin of a baby. It is from keratoses in an elderly individual. The mouth, if pure, with rosy red gums and perfect teeth is rarely the site of cancer. It is only when the teeth are decayed, the gums neglected, and acid changes have occurred that mouth cancer occurs. In fact, the great majority of cancers of the body are in the stomach which is a very highly acid medium. Further support that cancer occurs more in acid media is the fact that the moment the alkaline medium is gotten into, namely, the duodenum, there is little or no cancer there. Again, cancer almost never develops on the healthy cervix but on the raw, ulcerating cervix with a foul acid discharge and as a result of laceration and a change in its chemistry so that its secretion also becomes acid. That probably holds good in a majority of cases of cancer of the bladder.

---

*Read before the Issaquena-Sharkey-Warren County Medical Society, Vicksburg, Miss., Dec. 14, 1937.

In addition to local irritation and the great preponderance of acid media, inviting cancer, the occurrence of adenomatous polypi is believed to be the exciting cause of cancer. If these little wavy projections, even as small as a wheat straw, occur, cancer is very prone to develop upon it. That is not only true of the rectum, but we have a record of one patient, at least, who had multiple polypi of the colon that caused obstruction, which was relieved by two operations and a third operation later showed that cancer had developed upon those multiple polypi.

The continentals believe that cancer is due to heredity. The statisticians in this country are not able to prove what Maud Slye has shown: the great incidence of cancer in rats, from heredity.

SYMPTOMS. The symptoms of rectal cancer are found to be different varieties of bleeding, diarrhea, or constipation, swelling, tumor or lump, discharge of an abnormal type from the rectum, pain which may be high or low in the rectum or in the back or abdomen and protrusion, itching, etc. The patients often give the name of what they have been told or what they themselves believe to be the condition. Roughly speaking, 90 per cent have had blood which makes us naturally think of hemorrhoids. Two-thirds have pain. The duration is of value. While some chronic rectal condition may have existed for a long time, cancer will give symptoms so compelling that the patient will usually come for treatment in the first half of the first year. It would be ideal if we could train our patients to come as soon as any abnormal evidence or symptoms exist and next to that to insist as a universal custom on the thorough head-to-toe examination at least once a year of every person.

We must remember that 95 per cent would be in the rectum proper or the recto-sigmoid and only 5 per cent in the anus itself. Moreover, we must recognize that practically two-thirds of the carcinomata are in the recto-sigmoid and only about one-third in the rectum proper. Miles estimates that it takes a year and a half for the growth to travel around three-fourths of the circumference of the rectal wall, which gives a rough estimate of the duration of the growth by its extent around the circumference.

Inasmuch as nine patients out of ten who have cancer of the rectum have bleeding, it is immaterial whether it is red or bright or dark or clotted or what not. All it means is an examination for cancer.

The same may be hazarded about the history. It is all right to make thorough notes of everything the patients say about their cases, preferably in their own words, but is it not the universal experience that symptoms, while suggestive, are not, as a rule, pathognomonic and examination may prove or disprove the supposed significance of any symptoms or group of symptoms.

It is too bad that patients with cancer of the rectum do not have pain from the beginning. Then they would come at once and an earlier diagnosis and a larger percentage of cures could be obtained. When symptoms become severe, the patient usually comes for examination. It is up to us then to prove whether they have cancer or not. The mechanism of the rectum does not have much sensory innervation except near the anus. This is necessary to prevent lack of control of feces and almost incontinence. Therefore, we do not have pain in early cancer of the rectum and not until considerable advancement of the growth has occurred. For the purposes of identification, it is immaterial whether the pain is in the abdomen, in the back, hips or high in the rectum or "just inside," as none of them are definite but all are suggestive. A thorough-going examination is imperative.

It is not uncommon to have urgency of urination or uncertainty as to whether the patient wants to void or defecate and on going to stool will pass some urine and then a little blood or mucus from the rectum as a result of straining.

Digital examination should be very gentle and delicate with a well lubricated gloved finger. If there is a lesion around the anus that is very painful it may be touched with cocain before the examination is made. Moreover, we should not attempt to do much more than locate the tumor and determine whether or not it is attached. Causing pain and stirring up bleeding are to be avoided as they interfere with subsequent proctoscopic examination.

Gentleness and position are most important in proctoscopy. The knee-chest position can be used if an adjustable table is not available. The instrument should be inserted gently and the obturator removed often enough to check position since perforation into the peritoneal cavity has been recorded.

Buie has called attention to the important fact that cancer high up in the sigmoid is often denoted by a sentinel polyp, which should not only give the suspected diagnosis but also guard the examiner against any trauma that could possibly be avoided in his further exploration. The proctoscope should be gently insinuated and threaded, so to speak, from side to side passing the valves of Houston and inspecting every inch as one advances the instrument.

Cancer may appear as a mass from one wall of the bowel and the remaining wall may be seen also as perfectly normal. Sometimes when the larger growth is high, one will be unable to do more than see the proliferating mass because it practically blocks the lumen. The edge of the growth, where it springs from normal mucosa, is characteristic. One speaks of it as normal but often it has different shades, more of a pale pink and sometimes a fish-skin like marking.

The proctoscopic examination when a growth is discovered should be followed by the removal of a portion for microscopic examination. The cut surface should be touched with the cautery.

Years ago I had the sad experience of seeing within a short period of time, five cases of complete intestinal obstruction due to cancer of the rectum that had never been examined digitally. You can have a nurse to take your temperature, the laboratory to make examinations, an interne to take your history, but it takes the clairvoyant, intelligent, index finger to make the diagnosis in the great majority of cases where it occurs in the rectum. It is most regrettable that when a surgeon sees these cases nearly 75 per cent of them are inoperable. That is a great accusation against our diagnostic ability or rather our lack of initiative in making an early examination of the rectum in every case that comes to us, particularly when there is the slightest indication of any rectal or pelvic ailment.

TREATMENT. In the handling of cancer of the rectum, there are three types of operation that can be employed. All of them predicate that an artificial anus should be made in the left inguinal region. Then if for reasons of unpreparedness for the more extensive and exacting operation and praticularly in cases where the patient is a poor risk or is very obese, the surgeon should content himself with then making a posterior perineal resection of the rectum including the peritoneal cavity, which will in a considerable number of cases get rid of not only the offending lesion but the glands as well. Many of these have a very satisfactory postoperative extension of life. I have had a number of those cases who have survived five and ten year periods and have led a very active and comfortable life.

The second type of operation consists in first making artificial anus. Then the second stage is begun by opening the abdomen at the end of a few weeks, tying the inferior mesenteric artery, dissecting out all of the glands and the pelvic colon and upper rectum and burying it underneath the peritoneum which has been dissected around from the bladder and the lateral wall. After the peritoneal portion of the operation is completed, the patient can then be turned over and the posterior resection made, closing up the entire perineum.

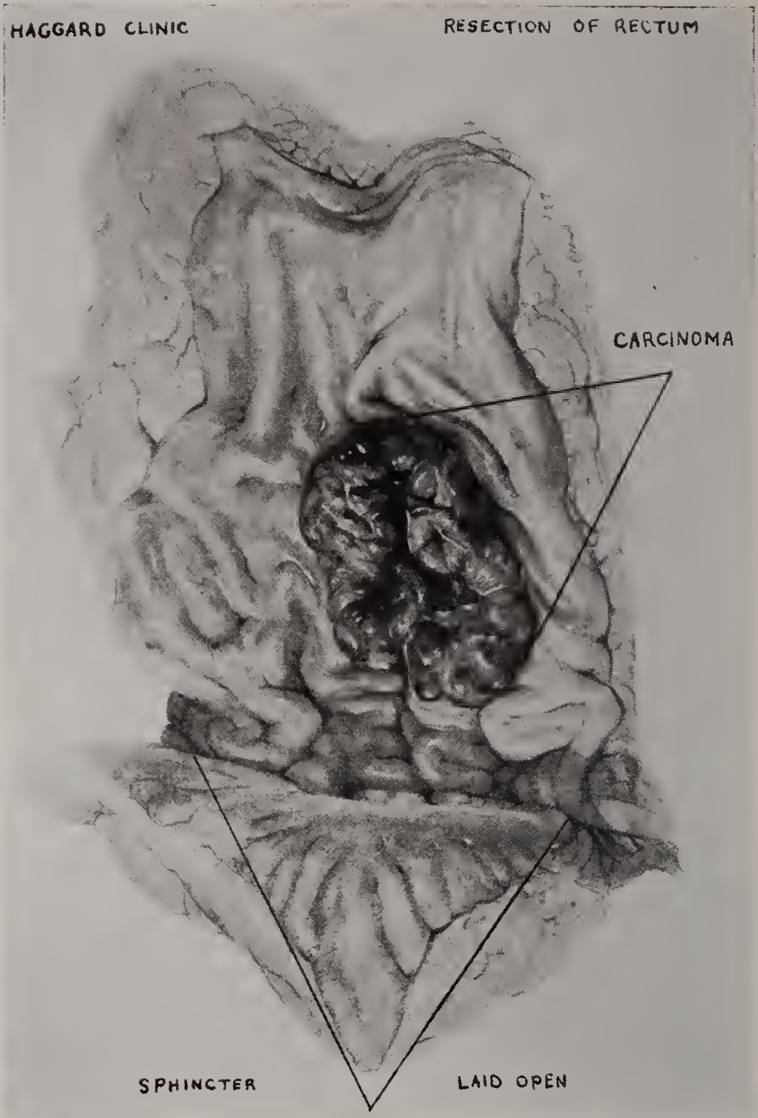
This same operation done in one stage gives a greater opportunity for removing all of the glands in the pelvis than the one where no abdominal dissection is made. It is a very formidable operation, requiring expert team work and a large experience with the simple types and the confidence of the surgeon of this ability to undertake it. If it can be essayed it is ideal. In competent hands it can be done with about a 10 per cent mortality but saves the patient a great deal of time and in suitable cases and a properly organized surgical clinic, it is becoming, I think, the operation of choice, especially under spinal anesthesia and with very careful preoperative preparation requiring a number of days of decompression and rehabilitation.

Whatever type the surgeon chooses, if he finds some metastasis in the liver, after he has made the colostomy, it is wiser to remove the rectum from below as in the first type of operation than to leave it. The patients will have more trouble with a left-in carcinoma from bleeding, pain and exhaustion and it will kill them quicker than the metastasis in the liver will, so for comfort's sake it is safer to remove the lesion itself even though the patient would die of metastasis, which takes a longer period than the carcinoma itself would require to kill the patient. Moreover, it is a painless death, whereas cancer of the rectum, even with a colostomy, if it is not removed, will continue to bleed, give great pain, and cause the patient a miserable end.

Radium is not a curative agent in the average case of cancer. It can be used by a person skilled in its employment in early cases, particularly where it can be followed by a thorough fulguration. This would be indicated where the patient cannot stand radical operation.

The preoperative use of radium hardly seems to be indicated in cancer of the rectum and while its postoperative employment may have some value, I think, after all, it is a question of early and thorough surgery that will give the most satisfactory result. Inasmuch as this is the only disease that kills 100 out of 100, it behooves the physician to make an early diagnosis and the surgeon the most complete operation that he is capable of performing compatible with the safety of the patient and the prolongation of human life. He will thus save around 30 per cent for a 5-year period.

If every cancer could be diagnosed in its very incipiency and receive perfected surgical treatment, what glorious results would follow. But, alas and alack,



"Who can undo
What time hath done? Who can win back the wind?
Beckon lost music from a broken lute?
Renew the redness of a last year's rose?
Or dig the sunken sunset from the deep?"

MISSISSIPPI STATE MEDICAL ASSOCIATION

Organized 1867

OFFICERS

President	W. L. Little, M.D., Wesson
President-Elect	Joseph E. Green, M.D., Laurel
Vice-Presidents	F. S. Hill, M.D., Grenada Lawrence W. Long, M.D., Jackson R. F. Ratcliff, M.D., Lucedale
Historian	Leon S. Lippincott, M.D., Vicksburg
Speaker	J. P. Wall, M.D., Jackson
Secretary	T. M. Dye, M.D., Clarksdale
Treasurer	E. LeRoy Wilkins, M.D., Clarksdale

COUNCIL

First District	J. W. Lucas, M.D., Moorhead
Second District	L. L. Minor, M.D., Rt. 4, Memphis, Tenn.
Third District	R. B. Caldwell, M.D., Baldwyn
Fourth District	T. J. Brown, M.D., Grenada
Fifth District	W. H. Watson, M.D., Brandon
Sixth District	H. Lowry Rush, M.D., Meridian
Seventh District	J. Gould Gardner, M.D., Columbia
Eighth District	W. H. Frizell, M.D., Brookhaven
Ninth District	D. J. Williams, M.D.. Gulfport

COMMITTEES

Constitution and By-Laws: W. H. Frizell, M.D., Brookhaven; J. Rice Williams, M.D., Houston; W. W. Crawford, M.D., Hattiesburg.

Budget and Finance: J. B. Howell, M.D., Canton; B. S. Guyton, M.D., Oxford; D. C. Montgomery, M.D., Greenville.

Public Policy and Legislation: W. H. Anderson, M.D., Booneville; F. J. Underwood, M.D., Jackson; Henry Boswell, M.D., Sanatorium.

Publication: Leon S. Lippincott, M.D., Vicksburg; D. W. Jones, M.D., Jackson; G. S. Bryan, M.D., Amory.

Program: T. M. Dye, M.D., Clarksdale.

Isolation Hospitals: H. F. Garrison, M.D., Jackson; J. Gould Gardner, M.D., Columbia; H. C. Ricks, M.D., Jackson; W. H. Anderson, M.D., Booneville; John Darrington, M.D., Yazoo City.

CHAIRMAN OF SECTIONS

Medicine	L. J Clark, M.D., Vicksburg
Surgery	J. Gould Gardner, M.D., Columbia
Hygiene and Public Health	H. C. Ricks, M.D., Jackson
Eye, Ear, Nose and Throat	Van Dye Hagaman, Jackson

ADVISORY TO WOMAN'S AUXILIARY

W. L. Little, M.D.,	Wesson	Henry Boswell, M.D.,	Sanatorium
Joseph E. Green, M.D.,	Laurel	T. M. Dye, M.D.,	Clarksdale
T. J. Brown, M.D.,	Grenada		

Mississippi State Medical Association

Leon S. Lippincott, M.D., ...Editor
D. W. Jones, M.D., ...Associate Editor
G. S. Bryan, M.D., ...Associate Editor

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

EDITORIALS

LIBRARY

A long and much needed service to the medical and dental professions, the public health workers and allied professions is now available through the library of the Mississippe State Board of Health. Established in 1936, it is now in new quarters on the first floor of the old Capitol, Jackson. The lack of a medical library of this type in Mississippi has been a handicap and the State Board of Health is to be congratulated on its forward step in making generally available medical books and journals with current information to inspire and encourage broader learning.

The library at present contains over 5,000 volumes. Books and journals may be borrowed by licensed physicians, members of the house staffs of hospitals, health workers, registered nurses, and others engaged in medical and public health work who offer suitable references and credentials.

Most material is loaned for a two weeks' period with the privilege of extension upon request. Books must be returned immediately, however, when recalled for special use by the librarian. Borrowers are expected to pay the cost of replacement of any book or periodical that may be lost or damaged while on loan. Any reader who fails to return a book which has been called in, or retains it beyond the maximum loan period without permission, or abuses in any way the privileges of reading or borrowing, is liable to be excluded from the use of the library.

It is the purpose of the library staff to answer all questions as fully and as promptly as possible. The librarian, Miss Louise Williams, will gladly assist in the selection of references on any desired topic.

HOSPITAL SERVICE CORPORATION OF MISSISSIPPI

At a meeting of the Board of Directors of the Hospital Service Corporation of Mississippi, at the Robert E. Lee Hotel, Jackson, January 10, it was voted to proceed with the plan for offering hospitalization insurance to the people of Mississippi as directed by the Mississippi State Hospital Association.

Mr. E. P. Marion, formerly with the Hospital Service Association of New Orleans and later with the National Insurance Corporation, was chosen as executive director, and directed to open an office in Jackson January 15.

An executive committee was elected as follows: Drs. A. Street, Vicksburg; J. P. Wall, Jackson; Leon S. Lippincott, Vicksburg.

It is planned to offer contracts to the people of Mississippi by March 1, hospitalization to be in those hospitals, members of the State Hospital Association, who have become members of the Hospital Service Corporation.

The plan is strictly non-profit. Contracts will be offered to groups at the lowest possible figure compatible with adequate hospital service. As in other states where millions are already enrolled, the patient is given first consideration. As has been the experience in other parts of the country, it is expected that the hospitals participating will be taxed to capacity to care for patients holding contracts. Medical service is not included and to be elegible for hospital care, contract holders must be referred by their physicians.

It has ever been my experience that folks who have no vices have very few virtues.—Abraham Lincoln.

DO YOU DO IT?

There is a rather odious modern habit of telephoning some one, and then not getting on the wire until the secretary of the person called has him on the wire. Here's what can happen:

Dr. A. (to his secretary) Get me Dr. B.

Secretary: Yes sir. (To the switchboard girl) Get Dr. A. Dr. B.

Switchboard Girl: Yes, Miss C.

Dr. B's Operator: Dr. B's office.

Dr. A's Operator: Dr. A wants to speak with Dr. B.

Dr. B's Operator: One moment. (To Dr. B's secretary) Dr. A. calling Dr. B.

Dr. B's secretary: One moment. (To Dr. B) Dr. A. is calling you.

Dr. B.: All right. Put him on.

Dr. B's Secretary: (To Dr. A's operator) Please put Dr. A on.

Dr. A's Operator: (To Miss C) Ready with Dr. B.

Miss C: Hello—Dr. B?

Dr. B's Secretary: Dr. B is ready, please put on Dr. A.

Miss C: You put on Dr. B.

Dr. B's Secretary: I will when you have Dr. A on.

Miss C: I'm sorry, but you'll have to put on Dr. B.

Dr. B's Secretary: I'm sorry, but you'll have to put on Dr. A.

Miss C: Now see here, Dr. A is a busy man—

Dr. B's Secretary: Dr. B is busy too.

Dr. A: (Bellowing) Say—where is Dr. B?

Miss C: Just a minute, sir . . .

Dr. A: It's been three minutes already!

Dr. B: (to his secretary) I thought you said Dr. A was calling me.

Dr. B's Secretary: He is, but he's not on the wire yet.

Dr. B: Where is he, out to lunch?

———And so on far into the afternoon! Here's a suggestion. Regardless of who you are, if you initiate a telephone call (even if it is to benefit the other fellow), have the courtesy to hold the phone to your little pink ear until the other fellow answers. That would solve the whole mess, and time and tempers would be saved.—Apologies to "It's Said and Done."

. COPIED

Lady (in theatre)—"Pardon me, sir, does my hat bother you?"

Gentleman (behind her)—"No, but it bothers my wife, she wants one just like it."

DIRECTORY AND CALENDAR OF MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-First Annual Session and Thirty-Fifth Annual Session of the House of Delegates, Jackson, April 19, 20, 21.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p. m.

Amite County Medical Society: W. S. Stewart, Oskya, president; D. H. Thornhill, Crosby, secretary. Meets second Thursday, each month with Wilkinson County Medical Society, Field Memorial Hospital, Centreville.

Central Medical Society: J. T. Rainer, Yazoo City, president; Lawrence W. Long, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m., except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. D. House, Sledge, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarkadel, 2 p. m.

Clark-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: William P. Warfield, Clarksdale, president; N. C.Night, Clarksdale, secretary. Meets second Wednesday each month, Alcazar Hotel, Clarksdale, 12 noon.

Coast Counties Medical Society: W. W. Lake, Pass Christian, president; D. L. Hollis, Biloxi, secretary. Meets first Wednesday, each month at night.

Delta Medical Society: E. T. White, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

Desoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, Rt. 4, Memphis, secretary. Meets first Monday of January, April, June, October, Hernando, 10 a. m.

East Mississippi Medical Society: C. H. Harrison, Philadelphia, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: C. A. Everett, Bude, president; L. Costley, Meadville, secretary.

Hancock County Medical Society: D. H. Ward, Bay St. Louis, president; A. P. Smith, Bay St. Louis, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: B. B. Martin, Jr., Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday each month, Mississippi State Charity Hospital, Vicksburg, 7 p. m.

Marshall County Medical Society: C. R. Senter, Byhalia, president, Herbert Phillips, Holly Springs, secretary. Meets second Thursday each month, alternating between Byhalia and Holly Springs.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Newton County Medical Society: V. L. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: R. M. Adams, Ripley, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: Dr. R. J. Brown, Iuka, president; A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September, December.

Pike County Medical Society: E. M. Givens, McComb, president; T. Paul Haney, Jr., McComb, secretary. Meets first Thursday, each month, McComb, 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R.F.D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tallahatchie County Medical Society: G. Lacy Biles, Sumner, president; G. D. Hightower, Webb, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday, each month, Senatobia.

Tri-County Medical Society: R. B. Zeller, Hazlehurst, president; J. C. McGuire, Hazlehurst, secretary. Meets March 15, Copiah-Lincoln Junior College, Wesson; June 14, Walthal Hotel, Tylertown; September 13, Riverside Hotel, Monticello; December 13, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president H. K. Kurry, Eupora, secretary.

Wilkinson County Medical Society: E. M. Butler, Centreville, secretary. Meets second Thursday, each month, with Amite County Medical Society, Centreville.

Winona District Medical Society: T. J. Brown, Grenada, president; S. B. Caruthers, Grenada, secretary.

STATE BOARD OF HEALTH

Eight Mississippi physicians were awarded three-months fellowships to Tulane University Medical School by the Commonwealth Fund of New York City. Dr. Clarence L. Scaman, director of the division of public health of the Fund, and Dr. Harry E. Handley, assistant director of the division of public health, interviewed applicants for the fellowships in Jackson during December, when the following selections were made: Drs. Rufus DePriest, Houston; William J. Aycock, Calhoun City; John C. Butler, Laurel; James P. Wiggins, Cleveland; Dewitt T. Allred, Collins; Joseph S. Gatlin, Laurel; Benjamin G. Bush, Vaughan; and Dexter D. Johnson, Belmont.

The physicians will devote six weeks to the study of surgery and six weeks to medicine.

Four physicians from the Mississippi Delta section are on scholarships for a month's syphilis course at Vanderbilt University. They are Drs. Lacey Biles, Sumner; Charles T. Berry, Greenville; E. A. McVey, Lambert; and E. M. Meek, Glendora.

The delta section with its large percentage of negro population and corresponding large syphilis problem plans extension of the syphilis campaign through increased clinic service and latest methods of diagnosis and treatment.

Governor Hugh White has reappointed three members of the State Board of Health for six year terms beginning January 1, 1938. Named by the Governor on the recommendations of the medical profession, these members are: Dr. J. W. Lipscomb, president; Dr. L. B. Austin, Rosedale; and Dr. Wm. R. Wright, Jackson, dental member of the Board. Their terms will expire January 1, 1944.

Re-elected executive secretary of the State Board of Health at the December meeting of the Board was Dr. Felix J. Underwood, who has directed this organization since 1924, and whose new term is also for a period of six years.

Other Board members are: Drs. S. E. Eason, New Albany; B. J. Shaw, Slate Spring; W. H. Banks, Philadelphia; H. L. McKinnon, Hattiesburg; L. W. Bock, McComb; John B. Howell, Canton.

Dr. Lawrence L. Beall, Cleveland, has been awarded a one year's residency at the New York State Tuberculosis Sanatorium at Oneonta, New York, by the Commonwealth Fund of New York. Dr. Beall will take special studies in tuberculosis.

Dr. W. A. Toomer, of Tupelo, is at present at the same institution on a six months' scholarship made available by the Commonwealth Fund.

Licensed by reciprocity at the semi-annual session of the State Board of Health were Drs. Harry Anderson Butler, Liberty; Harold D. Freedman, Senatobia; John Joseph Melvin, Natchez; Bruno Lyonel Schuster, Pass Christian; Marjorie Katherine Smits, Columbus; Lucy E. Bartlett Vaughn, Hillhouse; Harry Nelson Waggoner, Clarksdale; and Roy F. Cronan, Leland.

Appointment has been made of Dr. J. J. Pittman of Tylertown as health officer in Walthal County, succeeding Dr. Lampton Crawford; and Dr. J. T. Senter of Fulton as health officer in Itawamba County, succeeding to the post of the late Dr. N. W. Nanney.

The Lauderdale County Health Department has been granted a new modern health center building to be fully equipped with grounds properly landscaped, to be provided by the Commonwealth Fund of New York City. The City of Meridian will furnish the site for the building. All other expenses of construction and latest equipment will be borne by the Commonwealth Fund.

A home for the Pike County Health Department, made possible through the Fund, is already under construction.

On December 7, Dr. Felix J. Underwood addressed Christmas Seal Sale workers at a pep breakfast meeting of the Hinds County Tuberculosis Association at the University Club in Jackson.

Dr. John B. Grant of the International Health Division, Rockefeller Foundation, fresh out of the Chinese war zone, spent three days in Mississippi studying a different kind of war, that against disease.

Particularly interested in rural health work and malaria control, Dr. Grant visited the central health office and county units.

He has been stationed in China for the past several years and was in Nanking and Shanghai as recently as the latter part of October. Nanking was under military occupation when he left.

Dr. Grant conferred with Dr. H. C. Ricks, state director of county health work, and with Dr. George E. Riley, state director of malaria control.

On December 8, prior to the meeting of the Mississippi Public Health Association, December 9-10, was held the executive committee meeting of this organization. Present were. Dr. Felix J. Underwood, president; Mr. H. A. Kroeze, president-elect; Dr. R. N. Whitfield; and the following chairmen, Dr. H. C. Ricks, administrative section; Mrs. Syd Vaughan Schneidau, public health nursing section; Mr. Alonzo McCaleb, sanitation section; Mrs. Marilu Griffin, laboratory section; Mrs. Elizabeth Kimmons, dental hygiene section; Miss Jessie Lynn Ruff, clerical section.

Dr. Felix J. Underwood has been appointed a member of the committee to plan a Health Officers' Institute for the 1938 meeting of the American Public Health Association to convene in Kansas City.

Dr. John P. Koehler, Milwaukee commissioner of health and chairman of the committee to develop a program for health officers, made Dr. Underwood's appointment.

On December 14, Dr. Underwood attended the meeting of the Northeast Mississippi Thirteen Counties Medical Society at Tupelo.

Dr. Felix J. Underwood, Dr. H. C. Ricks, and Dr. A. L. Gray visited the Warren County Health Department on December 16 and were present for the discussion of the findings of the epidemiological unit by Dr. Gray, director of this unit.

Progress in public health work and expanding programs have made necessary two new divisions of the State Board of Health. Beginning January 1, Dr. J. A. Milne became director of the Division of Maternal and Child Health and Health Education, relieveing Dr. Underwood of increasing duties carried in addition to those of administration. Dr. Milne, former supervisor of the field unit, was succeeded by Dr. H. B. Cottrell, previously director of the Sunflower County Health Department.

Effective on January 1 also, Dr. A. L. Gray, epidemiologist, became director of the Division of Epidemiology, assuming part of the large volume of work formerly carried by the Division of County Health Work, of which Dr. H. C. Ricks is Director.

The second annual meeting of the Mississippi Public Health Association was held at the Robert E. Lee Hotel, Jackson, December 9-10. Present were health workers from all over Mississippi as well as many outstanding public health authorities of national repute.

General sessions were held both Thursday and Friday mornings which were open to all members of the Association and interested visitors and at which were presented subjects of wide public health appeal. Afternoons both days were devoted to sectional meetings where matters of particular interest to special groups were discussed.

The program of the general sessions was as follows: Presiding, Dr. Felix J. Underwood; "Essentials of School Health Education," Fannie B. Shaw, National Tuberculosis Association; "A Suggested Program of Control of Amebiasis by Health Departments," Colonel Charles F. Craig, Tulane University; "Dentistry in the Field of Public Health," Dr. Frank C. Cady, Dental Consultant, U. S. Public Health Service; "The Relative Importance of the Different Phases of Malaria Control," Dr. Mark Boyd, Rockefeller Foundation, Tallahasse, Florida; "A Few Remarks to the Homefolks," Dr. C. C. Applewhite, Regional Consultant, U. S. Public Health Service; "Coordination of Vital Statistics with County Health Work," Dr. Halbert Dunn, Bureau of Census, Washington; "Certain Administrative Aspects and Scientific Opportunities in Local and District Health Administration," Dr. Harry S. Mustard, Professor of Public Health Administration, College of Medicine, New York University; and "The Use of Biological Preparations in the Prevention and Treatment of Diseases," Dr. John Anderson, New Brunswick, New Jersey.

Visiting speakers to the sectional meetings and their subjects included: Dr. N. B. Lewis, of Vicksburg, "Organization and Operation of a Venereal Disease Clinic;" Judge J. M. Talbot, Clarksdale, "Proposed Rabies Legislation"; Mr. Logan H. McLean, Sanatorium, "Organization of a Local Tuberculosis Association;" Dr. W. D. Hickerson, Sanatorium, "The Diagnostic Clinic;" Dr. Marjorie Darby, Mc-

Comb, "A Study of Dental Defects of Retarded Students, 1936-37 Session, McComb City Schools;" Mr. H. A. Watson, Memphis, "Characteristics and Uses of Hand Force Pumps and Small Power Pumps for Private Water Supplies;" Dr. F. A. Clark, U. S. Public Health Service, New Orleans, "Discussion of Enforcement Problems of the Standard Milk Ordinance in Mississippi;" Miss Virginia Lynch, Columbia University, New York City, "The Role of the Secretary in Establishing Right Public Relationships."

The new executive committee of the Mississippi Public Health Association is composed of: Mr. H. A. Kroeze, Jackson, president; Dr. Felix J. Underwood, vice-president; Dr. F. M. Smith, Vicksburg, president-elect; Dr. D. V. Galloway, Meridian, chairman, Adiministrative Section; Mrs. Ella M. Sayle, McComb, chairman, Public Health Nursing Section; Miss Emily McQueen, Magee, chairman, Dental Hygiene Section; Mr. R. H. Riggin, Tupelo, Chairman, Sanitation Section; Mrs. Georgia Stewart, Jackson, chairman, Clerical Section; Mrs. A. M. Jones, Jackson, chairman, Vital Statistics Section; Mr. J. C. Register, Jackson, chairman, Laboratory Section; Dr. R. N. Whitfield, appointed by Executive Officer of State Board of Health.

Social highlights of the Mississippi Public Health Association meeting included the banquet and dance at the Robert E. Lee Hotel, Thursday evening, and the luncheon and bridge at the University Club Friday noon for ladies accompanying members of the association. Featured at the banquet was the president's address by Dr. Felix J. Underwood, and a talk by Dr. W. A. Evans, native of Aberdeen, entitled "Some Observations Made on My Recent African Tour."

Adopted by the Mississippi Public Health Association was the following resolutions:

Whereas, Since the last meeting of the Mississippi Public Health Association, the Great Physician has administered the last final aid to Dr. N. W. Nanney of Itawamba County and Doctor C. W. Stewart of Amite County, two of our honored members; and

Whereas, These faithful physicians and health officers have bid us a last adieu; therefore,

Be it resolved, that we, the members of the Mississippi Public Health Association, bow our heads in humble submission and in appreciation of these loyal friends and fellow-workers who have met their Pilot and crossed the bar.

More people are drowned accidentally in Mississippi than die from diphtheria. More are killed by accidental discharge of firearms than die from typhoid fever. More people die from accidental falls than succumb to diphtheria, typhoid fever, scarlet fever, and small pox combined. Accidents in 1936 caused 400 more deaths in Mississippi than tuberculosis. Excepting tuberculosis and influenza there were 500 more deaths from accidents in 1936 than from all the contagious and infectious diseases combined.

The whole county is studying accidents and their prevention. The active cooperation is needed of all physicians in Mississippi who can assist very materially in gathering information on violent and accidental deaths Particularly can they fill out all questions under items 23 and 24 on the standard death certificate whenever the death was due to violence or to accidental means. They can help very much, also. by answering special questions sent out from the Board of Health in connection with these particular deatns.

An interesting development of a resolution regarding plumbing regulations presented at the Mississippi Public Health Association meeting has been the approval of an act to govern the state plumbing industry by the Mississippi Association of Master Plumbers. This act will be presented to the state legislature for enactment into law. Well recognized by health workers, plumbers, and many others are the hazards to health in faulty and defective plumbing.

On December 18, Dr. Felix J. Underwood attended the annual meeting of the State Commission for the Blind, of which he is chairman. Other members of the Commission are Mr. J. S. Vandiver, vice-chairman, Jackson; Miss Anita Clagett, Jackson; Colonel Henry Kahn, Duck Hill; Dr. David E. Guyton, Blue Mountain.

Dr. Albert E. Russell, Division of Industrial Hygiene, U. S. Public Health Service, Washington, D.C., conferred with Dr. Underwood and Dr. J. W. Dugger, director of industrial hygiene, relative to syphilis control in Mississippi factories. This disease is considered of vast economic as well as personal significance.

Dr. Felix J. Underwood attended a meeting of the Advisory Committee on Public Health of the Commonwealth Fund, in New York City on December 29.

Recent visitors to the Mississippi State Board of Health including Dr. John W. Ferree, Indiana State Board of Health, Indianapolis, Indiana; Sterling Brackett, Wisconsin State Board of Health, Madison, Wisconsin; and Donald B. McMullen, Biology Department of Monmouth College, Monmouth, Illinois.

The December radio program over WJDX was as follows: December 4, "Progress in Cancer Control," Dr. Felix J. Underwood; December 11, "A Message to the Homefolks," Dr. C. C. Applewhite, U. E. Public Health Service, Chicago, Illinois; December 18, "Fun without Folly," Dr. R. N. Whitfield, Director of Vital Statistics; December 25, "Christmas Greetings," Dr. Felix J. Underwood. The Christmas broadcast also featured Christmas carols by the Rebel Chorus of Jackson, directed by Mr. Maurice Thompson and augmented by the voices of forty boys from the Jackson First Baptist Church choir.

Jackson, Felix J. Underwood,
January 5, 1938. Executive Officer.

WOMEN'S FIELD ARMY, AMERICAN SOCIETY FOR THE CONTROL OF CANCER, MISSISSIPPI DIVISION

I am sending you the enclosed article, "A Brief Introduction to the Women's Field Army," for the control of cancer, also samples of literature for your own approval which we are distributing to the laity.

I would like to put these into the hands of every physician in the state; however, on account of lack of funds this is impossible. So I am taking this means to ask you to publish the above mentioned article.

As State commander of the Women's Field Army for the control of cancer in Mississippi, I want every doctor to know what we are trying to do. We want to reach every woman in the state and tell her what the early symptoms of cancer are, and that an early visit to her physician is most important. We tell her that there are only three treatments for cancer: radium, x-ray and surgery.

I will appreciate any assistance that you can give us through your good journal. We want the doctors to know what we are doing and want their cooperation in this great work.

Biloxi, Emma Gay,
Jan. 11, 1938. State Commander.

* * *

A Brief Introduction to the Women's Field Army

The Women's Field Army of the American Society for the Control of Cancer is the culmination of many years of slow but steady progress. Twenty-five years ago, in the spring of 1913, back before the World War, a group of scientists and physicians and prominent laymen had a series of meetings to determine what could be done to collect disseminate information on cancer. The result of these meetings was the formation of the American Society for the Control of Cancer.

The Society experimented for years with various methods of education and, in 1931, had four qualified field representatives traveling throughout the country, occasionally lecturing to lay audiences, but concentrating on cooperation with physicians through state medical societies, the American College of Surgeons, and the American Medical Association in raising medical standards of diagnosis and treatment of cancer.

In quantities of literature distributed, of newspaper publicity, and radio broadcasts, the Society was eminently successful, but cancer education was a slow process. What was needed, it became clear, was a continuing and always growing group of lay people interested in problems of cancer control. Physicians throughout the country reported that too often their patients came to them only after cancer had spread throughout their bodies and become incurable. "Persuade half of those who now die each year."

To meet this demand the Women's Field Army was launched last fall by the American Society for the Control of Cancer. Funds were low, supplies of material were limited, but the idea was one that interested thousands. Marjorie B. Illig, the National Commander of the Army, traveled through thirty-two states, enlisting the cooperation of forward-looking socially-minded women. Grace Morrison Poole, now Mrs. Gilbert Reynolds, as Chief Adviser to the Army, was a tower of strength. In every state where a division of the Army was launched, the program was approved and supervised by representatives of the State Medical Society.

Through speeches, radio broadcasts, through newspapers and magazines and pamphlets, the Army presented its slogan "Early Cancer is Curable. Fight It with Knowledge." When the smoke of battle had cleared away, more than 100,000 women had enlisted in the Women's Field Army.

That was important, but even more important was the great work of education that was done. In those communities where the Army was really under way, where it received enthusiastic cooperation, the results were incalculable. One physician reported that in one county alone thirteen early cases of carcinoma were discovered as a result of the campaign. That means that at least ten lives were saved in that one county. Only those who were in intimate contact with the day by day work of the Army know its value and its achievements.

Now the Women's Field Army is launching its second annual campaign which will reach a climax in April on the twenty-fifth anniversary of the founding of the American Society for the Control of Cancer.

The program of the Army has been summarized in five points. Those will be altered or expanded in individual states but in general they express the steps we shall take to reduce cancer mortality. The five points are:

1. To teach every man, woman, and child

in our country that early cancer is curable, that general cancer mortality figures can and may be reduced only by courageous alertness and prompt action by the **individual.**

2. To spread widely the cancer danger signals and to cut the delay, often fatal if cancer is present, between the appearance of those signs and a visit to a physician.

3. To emphasize the great importance of a complete annual physical examination by a competent physician.

4. To interest men and women in all aspects of the cancer problem: Diagnosis and treatment, research and related problems, the need of under-privileged sufferers from the disease.

5. To enlist during the month of April as many women and men as possible in the support of the Women's Field Army. The enlistment fee dollars are needed to carry out educational work. When the above program is satisfactorily financed, other projects selected and approved by the leading cancer authorities in our state may be launched and supported.

The Women's Field Army would not exist today were it not for the generous and enthusiastic support of the large national women's organizations throughout the country. The presidents of fifteen of these groups are members of our National Advisory Board. Included are the General Federation of Women's Clubs, the National Council of Women, the National Council of Jewish Women, the Catholic Daughters of America, the National Federation of Business and Professional Women, the National Association of Colored Women, and the National Society of the Daughters of the American Revolution. These and other organizations are the state and national pillars on which we lean in our work. In local communities reading clubs, church sewing societies, study groups—organizations of every sort—will, I am sure, give us the same support.

In April, during the enlistment period, we shall go to the men and women of our state and ask them to enroll in the Field Army and to pay their one dollar enlistment fee. Of this dollar and of all other moneys contributed, seventy per cent will be used in our state for cancer control work as directed by the State Division's Executive Committee with the approval of the American Society for the Control of Cancer. Thirty per cent will be retained by the American Society for use in education on the national front.

Last year the Army was active in thirty-nine states, in some very successfully, in others less so. This year we have already begun to work 43 states and before many weeks have passed we hope to have an active and effective division in every state in the union.

Cancer is not a pleasant subject. Few of us who have reached maturity have not thought rather fearfully of this disease and wondered whether there was not something that we might do to combat it, either in ourselves or in others. All of us have been saddened by the loss of at least one dear friend or relative from this disease.

Can we pay a better tribute to the memory of those we have lost than by erecting a Living Memorial to them in the shape of the Women's Field Army? This great crusade of women, of physicians, of all forward-looking members of our community is surely the best way of honoring the departed. In waging this war to save human life we have an opportunity to help not only ourselves but our friends and neighbors. Let us, then celebrate the twenty-fifth anniversary of the founding of the American Society for the Control of Cancer by building a strong and effective Women's Field Army: A Living Memorial to those who have died, a promise of life and hope to those who in the past have only known fear.

INTERPRETING MEDICAL LITERATURE

UROLOGY

Temple Ainsworth, Jackson

A Study of Recurrence Following Operations for Nephrolithiasis.—Francis Patton Twinem: J. Urol., 37, 1937. The author reports a series of 314 operations for stones at New York Hospital as to recurrence. The percentage of recurrence following pyelotomy was 20.9 per cent and following nephrotomy, 28 per cent. The greater incidence following nephrotomy agrees with the results of other investigators, but this point should be interpreted with some qualifications since the type of operation originally selected depends on the size, shape, number and location of the stones. The percentage of recurrence following operations for multiple stones was greater than that for single stones. The frequency of pseudo-recurrence is considerable, and to avoid this possibility, x-rays should be taken on the table, particularly in multiple and staghorn calculi. Heminephrectomy should probably be employed more frequently than it has been. The low percentage of recurrence in the opposite kidney following both nephrectomy and conservative operations indicates the importance of local factors in stone formation. Phosphatic calculi were found to recur more frequently than calculi of other composition except those composed of cystine. Methods of avoiding postoperative recurrence are outlined. In 56 cases treated along these lines for the past year and a half, there has been a recurrence in 5.36 per cent.

1. Overcome infection of urinary tract by:
   (a) Ketogenic diet
   (b) Urinary antiseptics—methenamine, acriflavine.
   (c) Pelvic lavage; ureteral dilation; indwelling catheters; surgical drainage occasionally.
2. Vitamin A in large amounts:
   Haliver oil capsules, cod liver oil, carotene.
3. Alkaline stones:
   (a) Acid ash diet.
   (b) Keep urinary pH below 5.2. If diet fails to do this, ammonium chloride; dilute nitrohydrochloric acid.
   (c) In calcium oxalate calculi, diet low in oxalates.
4. Uric acid calculi:
   (a) Keep urine markedly alkaline—alkaline ash diet plus alkalinizing drugs.
   (b) Diet low in purines.
5. Cystine calculi:
   (a) Intense urinary alkalinization.
6. Urinary pH determined by patient daily.
7. X-ray check every four months.

Comment: A physician who treats a patient for urinary calculi and does not use some treatment to prevent recurrence, such as outlined above, is certainly doing the patient a grave injustice. This applies to those patients who have passed calculi without surgery as well as those who have had surgical removal.

Since a great deal of the treatment depends on the composition of the calculus, it is important to have every calculus examined by a competent laboratory.

George F. Schenck and Clayton R. Lane in the Journal of Urology, Volume 37, pages 79-83, 1937, state that the records of the Los Angeles County General Hospital for 1934-1935 show 147 diagnoses of renal and ureteral calculi, 84 males, 63 females, ages 18-79, average 41 years. The peak for males was 30-40, females 40-50.

The admitting diagnosis is often confused with diseases of the abdomen and occasionally of the chest. The incidence of symptoms were: pain, 70 per cent; hematuria, 42 per cent; gastro-intestinal, 34 per cent; dysuria, 27 per cent; fever, 23 per cent; chills, 22 per cent; gross pyuria, 22 per cent; anuria, 3 per cent; no symptoms, 0.3 per cent; and passing of stones, 0.2 per cent. Ten had pain and one hematuria as the only symptoms. Operations were done for salpingitis, appendicitis, and ruptured gastric ulcer on three with ureteral stone. No errors occurred in cases that had a plain x-ray or urologic study.

There were 52 cases of stone in the ureter: 33 single, three multiple, eight complicated by a single stone in the kidney, six by bilateral stones in the kidneys and two by stones in a solitary kidney. Ureteral manipulation was done in 15 cases, successfully in nine (including cases complicated by a stone in a solitary kidney). Fourteen were not treated for various reasons but four passed the stone spontaneously. Eleven refused treatment. Thirty had recurrence of stone in the kidney, eight a multiple recurrence. Eighty-two per cent recurred within five years. The most recurrence in a single case four times in five years. The greatest number of stones in a single kidney was 250.

Jackson, January 4, 1938.

PEDIATRICS

Harvey F. Garrison, Jackson

Ascorbic Acid (Vitamin C) Treatment of Whooping Cough. — Ormerod, M.J., et. al.: Canada M. A. J. 37:134—136, 1937. Accepting the hypothesis that a neurotrophic toxin is elaborated by the Bordet—Gengou bacillus in the early catarrhal stage affects the vagus and respiratory centers and possibly the sensory nerve endings in the upper respiratory tract, the authors offer this as an explanation of the continuation of whooping cough paroxysms. Since it has also been shown by some investigators that vitamin C is an essential part of the body's defense against the Bordet-Gengou bacillus, the authors administered large amounts of ascorbic acid in ten cases. They state that in this series ascorbic acid had a definite affect in shortening the paroxysms from a matter of weeks to a matter of days. The daily dosage varied from 500 to 250 mgs.

A Further Report on the Ascorbic Acid Treatment of Whooping Cough.—Ormerod, N. J., et alfl: Canad. M. A. J. 37: 268-272, 1937. The authors give further observations upon the use of vitamin C in the treatment of whooping cough. The occurrence and order of the clinical changes noted were:

1. Marked reduction or complete arrest of vomiting.
2. Reduction or disappearance of the night cough.
3. Reduction in number or intensity of the whoop.
4. Reduction in number or intensity of day cough.

This further report includes fifteen cases. They also advise the continuation of 100 mg. ascorbic acid daily, for a few days after the symptoms have subsided, since they have found that this reduced dosage prevents some exacerbation occurring three or four days after the first relief symptoms.

Comment: It would seem that since tablets of ascorbic acid are easily obtained through your druggist, that this new form of treatment of pertussis is very simple and is certainly well worth the effort of trial.

The Comparative Value of Spinach and Tomatoes in the Child's Diet.—Tisdale, Fred F., Drake, T. G. H., Summerfeldt, P., and Jackson, S. H.: J. Pediat. 11: 374-384 (Sept) 1937. The authors have investigated the comparative nutritional values of spinach as prepared for consumption and of canned tomatoes.

Iron analyses were made on a number of different samples of cooked spinach and canned tomatoes. It was found that the total iron content per 100 gm. of cooked spinach is more than three times as high as that of 100 gm. of canned tomatoes. From this one might conclude that spinach should be the better source of iron for hemoglobin formation and regeneration. However, before iron can be utilized by the body it must go into solution in the intestinal tract. Using the procedure, outlined by Summerfeldt, of duplicating in vitro the conditions found in the child's stomach, estimations were made of the iron which went into solution. The amount of soluble iron found in 100 gm. of cooked spinach and in 100 gm. of canned tomatoes is approximately equal. Hence, although the total iron content of the spinach is more than three times as high as that of the tomatoes, the amount of iron available for hemoglobin regeneration is approximately the same in the two vegetables.

The hemoglobin regenerating power of cooked spinach and tomatoes was determined biologically on anemic rats. It was found that spinach and tomatoes are approximately of equal value as a source of iron for the prevention and cure of nutritional anemia.

The calcium content of the cooked spinach is approximately 20 times that of canned tomatoes. It would appear from this that spinach should be a better nutritional source of calcium than canned tomatoes. However, Fincke and Sherman have shown that the calcium of spinach is not as well utilized as the calcium in kale. This lack of availability of the calcium of spinach may be due to its high oxalate content since under certain conditions oxalic acid will unite with calcium and precipitate out as the insoluble calcium oxalate.

The authors found that, in normal young rats, a small increase in calcium intake furnished by the addition of canned tomatoes to a low calcium diet resulted in a marked increase in calcium retention, while six times this increase in calcium as contained in cooked spinach actually produced a negative calcium balance.

From these results one can conclude that spinach instead of being a good nutritional source of calcium actually tends to produce a negative calcium balance. On the other hand, the retention of the calcium in cooked tomatoes is excellent.

The vitamin A content of cooked spinach is approximately four times as great as that of canned tomatoes. The vitamin B content of cooked spinach is approximately one-half that of cooked tomatoes. The vitamin C content of cooked spinach is less than one quarter that of canned tomatoes. The vitamin D content of cooked spinach and canned tomatoes is negligible, it requiring several hundred servings of either to furnish the amount of vitamin D in one teaspoonful of cod liver oil.

A very appreciable loss of many of the food elements of spinach may occur in the discarded cooking water, even when the cooking is carried out under ideal home conditions. If these conditions are not observed, the loss may be greatly accentuated. On the other hand, there is no water discarded in the preparation of tomatoes for consumption.

The nutritional value of spinach is greatly over-rated. Sufficient prominence has not been given to the nutritional value of canned tomatoes.

Comment: The attention of the medical profession of the State of Mississippi should be especially called to the facts produced in this abstract, relative to the food and vitamin comparative values of spinach and canned tomatoes. Since it is well known that many of our farmers and truckers have canned tomatoes, we should impress the importance of the consumption of more of this type of food,, in order to avail ourselves of the value of same. Jackson, Jan. 4, 1938.

RADIOLOGY AND ROENTGENOLOGY

J. A. Beals, Greenville

Contrast Mammography.—It is well recognized that there is a great need for exact diagnoses of the various affections of the mammary gland in order that malignant processes may be discovered while they are early and curable, and in order that conservative treatment rather than mutilating operations may be carried out when the indications are clear.

To the time honored and invaluable methods of anamnesis, inspection, and palpation have been added transillumination by Cutler in 1929 and roentgenography of the breast by Lockwood and others about 1932. Both of these methods have already established a considerable value but leave much to be desired.

During 1937, N. F. Hicken and co-authors of the University of Nebraska have published five articles on the value of roentgenography of the breast performed after injecting the ducts with a substance opaque to the x-rays. The opaque medium preferred by them is thorium dioxide sol (thorotrast). After cleansing the nipple as carefully as in preparation for an operation, the openings of the ducts are located by expressing a droplet of secretion. A 25-gauge blunt canula is then introduced into the duct and injection made until the patient experiences slight discomfort. Each of the 8 or 10 ducts may be injected in turn. The procedure is tedious and sometimes impossible to perform. Stereoscopic roentgenograms of the breast are made and studied.

Papillomas within a duct are outlined as a filling defect in the duct shadow. Abnormal dilations and cysts which communicate with a duct are readily localized. Cysts which do not communicate with a duct are aspirated by needle puncture, filled with air or an opaque medium, and their walls studied for signs of neoplastic growth. Cancer may occlude the ducts and prevent roentgen visualization and will distort and deform the normal pattern of other ducts.

The authors have also studied the breast by air injection into the subcutaneous and submammary areolar tissue, a method of value in demonstrating the character and relations of certain solid tumors. The method is also helpful at times in conjunction with the contrast filling of ducts or cysts.

The latest article by Hicken, Best, and Hunt appears in the December, 1937, *Archives of Surgery*. This deals with characteristic alterations in the radiographic pattern of the mammary ducts of patients with an abnormal discharge from the nipple. A hemorrhagic serosanguinous, or serous discharge usually arises from a duct papilloma, carcinoma, or simple cyst. A greenish, white, purulent, or a milky discharge is more often caused by such non-neoplastic conditions as retention mastitis, infection of milk ducts, cysts, or galactocele. They conclude that while the kind of discharge is not at all characteristic of its source or exact cause, contrast mammography is of inestimable value in identifying the site, extent, and nature of the underlying pathologic process. They recount, with reproductions of the duct mammagrams, cases of papilloma, carcinoma, simple cyst, infected cyst, retention mastitis, "caked breast," galactocele, and postlactation involution.

The reviewer has talked with one of these authors and seen his very excellent roentgenograms exhibited at the June, 1937, meeting of the A. M. A. The impression gained was that while this method is subject to failures and errors of interpretation, its value in the differential diagnosis of all but the most manifest breast conditions will not be neglected by progressive surgeons.

See also N. F. Hicken, et al, J. A. M. A., March 13, 1937, and Am. J. Surg. June, 1937; also N. F. Hiken, Surg. Gynec. & Obst., March, 1937, and Radiol. & Clin., Photog., April 1937.

Cholecystography: Technical Considerations.—H. B. Phillips, New York City, **Radiology**, Nov., 1937, says "the amount of accuracy of information obtainable from cholecystography is directly proportional to the care, precision, and attention to details in the course of the examination."

He rightly recommends for greater accuracy the somewhat more time consuming method of giving the dye in multiple doses beginning 36 hours before the x-ray examination. The patient is given a printed slip regulating his diet for this period which insures an excess of glucose, a factor which tends to intensify the shadow of the gallbladder. (It is often astonishing how many persons are incapable of carrying out the most implicit printed instructions.) Pyloric or duodenal obstruction, vomiting or intense diarrhea will, of course, interfere with the test. If attention is given to all these factors and a sufficient number of films of good quality fail to visualize the gallbladder, it is safe to conclude that disease is present. Phillips correctly warns, however, that non-visualization is no indication for operation, for the disease may quickly subside under conservative treatment.

If the gallbladder is visualized, there remains the question of stones, gallbladder sand, and new growths springing from the wall of the gallbladder. These cannot be eliminated without making several exposures using a small cone with the patient turned in various positions, both before and after giving a fatty meal to empty the gallbladder. M. Feldman, of the University of Maryland, recently (Radiology, July, 1937) devotes an article to the advantages of films made with the patient in the left oblique and left lateral posture, both at inspiration and expiration. Phillips especially recommends the exposures made with the patient in the erect posture.

If gas or opaque material in the intestine interferes with the examination, as it frequently does, this author finds no trouble in eliminating them by multiple films in various postures and the giving of a warm enema. He does not consider it necessary to employ pitressin to eliminate such confusing shadows. (In this the reviewer is in agreement).

Cholecystography: Evaluation of the use of Pitressin and Other Procedures.—E. N. Collins and J. C. Root, of Crile's Clinic, Cleveland, O., (Radiology, Aug., 1937) devote a lengthy article to technical considerations which have a significant bearing on the reliability of the oral cholecystographic examination. Their experience is based upon 5,000 such examinations.

These authors insist upon the importance of combining this diagnostic procedure with a complete roentgen examination of the entire gastro-intestinal tract and urinary tract, particularly in the many cases wherein symptoms are not clearly of biliary origin.

They find the single dose method adequate in 90 per cent of cases examined, but when there is non-visualization or a shadow of poor density they insist upon proceeding with a multiple dose method combined with the administration of sugar for intensification of the gallbladder shadow.

Confusing shadows, usually of gas or barium in the intestines, have interfered with examination in 10 per cent of cases. To these they routinely administer an ampoule of 20 pressor units of pitressin, provided the patient does not have a hypertension or a systolic pressure of below 100. This causes evacuation of the bowel within 30 minutes in 75 per cent of cases. They consider it more effective in eliminating confusing shadows than the usual method of giving enemas or cathartics.

The use of pitressin, the authors say, conserves time for the complete gastro-intestinal examination. The same is true of their oral administration of an ounce or less of a mixture containing lecithin which rapidly brings about a partial emptying of the gallbladder if no disease or obstruction is present.

The authors are sure that occasionally a diseased gallbladder may show a normal function and no stone and that conversely a normal gallbladder may not be visualized. How often these errors occur is difficult or impossible to tell for the vast majority of cases examined do not go to operation. In 150 of their cases the cholecystographic diagnosis was verified in 93 per cent. However, the authors rightly make the point that these 150 cases, as in other similar series, are those selected for operation because they were both clinically and radiographically positive cases of gallbladder disease.

Accuracy of Cholecystographic Findings.— In connection with the foregoing abstracts dealing mainly with the technique of cholecystography, two significant articles should be considered. One attempts a partial answer to the two questions so regularly asked by clinicians: How accurate is the method in the diagnosis of cholecystitis? How accurate is the method in the diagnosis of stone?

T. J. Hodges and I. Lampe (Amer. J. Roent., Feb., 1937) of the University of Michigan, report a detailed analysis of 238 patients on whom the cholecstographic findings were checked by operation or autopsy. Microscopic evidence of minor inflammatory change was arbitrarily classed as normal in making this evaluation. Surgical criteria gave consideration to color, pliability of gallbladder, presence or absence of palpable stones in gallbladder or ducts, and the presence or absence of multiple adhesions about the gallbladder.

The technique of the cholecystographic examination was not routine—not elaborate or individualized.

Normal visualization indicated absence of cholecystitis in 84 per cent of 44 proven cases although (apparently) 15 of these normally functioning gallbladders had stones visualized by the dye test. Faint visualization without stone occurred in 23 cases of which 61 per cent proved to have surgical or microscopic evidence of cholecystitis.

Complete non-visualization occurred in 131 cases. Eighty per cent of these were proved diseased. A positive diagnosis of stones was made in 65 cases and was 97 per cent correct. However, in diseased gallbladders which were non-visualized by the dye the correct diagnosis of stone could be made in only 32 per cent.

The other article referred to, by C. A. Good and B. R. Kirklin, of the Mayo Clinic (Amer. J. Roentgenol., Mar., 1937), illuminates another question, is the cholecystographic diagnosis influenced by extrabiliary disease? These authors reviewed 733 cases in which cholecystographic findings were recorded normal in 566 and abnormal in 167. This series comprised fairly equal numbers of cases having peptic ulcer, pernicious anemia, thyrotoxicosis, myxedema, diabetes mellitus, obesity, pulmonary tuberculosis and chronic appendicitis.

Of the 167 cases with abnormally functioning gallbladders, 106 were operated upon or the condition of the gallbladder studied at autopsy. The cholecystographic findings were confirmed in all but two. In the remaining 61 cases not operated upon, the clinical diagnosis agreed with the cholecystographic findings in all but four.

Greenville, Dec. 14, 1937.

SURGERY

A. Street, Vicksburg

A New Simplified Technique for the Drainage of Lung Abscess Employing Graduated Trochars.—J. Thoracic Surg. vii: 181-190 (Dec.) 1937. Dr. O. H. Wangensteen comments on the lack of agreement among surgeons on just how pulmonary abscesses should be drained. Attention is called to the danger of hemorrhage when the lung is incised or opened by the usual methods. Very carefully and slowly burning an opening into the cavity with the cautery has proven to be very satisfactory.

Wangensteen's new method consists of rib resection, exposure of the parietal pleura and packing gauze against the parietal pleura for five to seven days, if it is not already adherent. Five to seven days later a needle is introduced into the abscess cavity and the tract of the needle is coagulated with the high frequency current. The needle is so constructed that the proximal portion may be unscrewed and replaced by an attachment, so as to do away with the hub of the needle. A small cutting trochar is then slipped over the needle into the abscess cavity and the coagulating current applied to the trochar. A large trochar is then passed over the small one and the coagulation repeated. This procedure is repeated using larger trochars, until the tunnel is large enough to admit a drainage tube. Dr. Wangensteen has found this method entirely satisfactory for the drainage of pulmonary abscess.

Tube drainage is preferred to gauze packs.

Lung abscesses should be drained as soon as the process has become localized. This is determined by clinical observation and roentgenologic findings. The exact time required for localization to take place cannot be stated, but eight to twelve weeks is, undoubtedly, too long.

Postural drainage is intermittent and not adequate. The usefulness of bronchoscopic methods is almost totally confined to abscesses forming, that have formed, the result of foreign body in the bronchus.

Comment: Lung abscess is a desperately serious disease. The mortality is high and, if the patient lives with a chronic abscess, his life is miserable. It is important for us to prevent abscess formation as thoroughly as possible. This can be partially accomplished by care in avoiding aspiration of foreign body material by the patient during operations in the mouth, especially, tonsillectomy and dental operations. Foreign body aspiration having occurred, abscess can still be prevented by prompt bronchoscopic removal of the foreign body material.

Once an abscess cavity has formed, surgical drainage should be considered; but I do not feel that all cases require incision and drainage. I have seen too many small lung abscesses subside without operation. On the other hand, a large abscess present in a patient who is losing ground requires prompt evacuation, and this can only be done by some method of incision and drainage.

Acute Suppurative Pericarditis.—An. Surg. 104:365-371 (Sept.), 1936. James H. Heyl reviews the literature on acute suppurative pericarditis. The results of surgical treatment of the condition are steadily improving. Mortality has decreased from sixty-five per cent (65%) in the 52 cases reported by Porter and Roberts in 1900, to forty-two per cent (42%) for the entire series of 152 cases reported by Truesdale in 1933. The treatment of suppurative pericarditis is just as definitely surgical as that of empyema of the thorax.

The author reports a case of pneumococcus pericarditis in a child aged eighteen months, treated by incision and drainage. The incision was of the hockey-stock type over the sternum, from the second to fifth costal cartilages, with lateral extension over the fifth costal cartilage, fifth cartilage excised, fourth and third divided at sternum and flap raised. Pericardium was exposed and pleura pushed to the left, and the pericardium was incised and drained, using a soft rubber catheter pushed over the left ventricle. The patient recovered.

In commenting on fluoroscopic diagnosis of fluid in the pericardium, Heyl calls attention to the presence of an undulating fluid wave in the fluoroscopic shadow at each beat of the heart, the wave beginning at the base and progressing toward the apex. This has not been described before, so far as he can determine.

Regarding operative technique, it was observed that the incision used in the case reported seemed to be too high for good exposure. Also, at this site, the heart tends to ride forward and obstruct drainage. The use of the incision described by Allingham, which consists of a high left rectus incision and extra peritoneal approach to the pericardium through the diaphragm, is suggested. This procedure is not likely to contaminate the pleura and affords dependent drainage.

Comment: We do not see suppurative pericarditis very often. However, because the treatment is urgently surgical, we should try to make prompt diagnosis when it does occur, and proceed with incision and drainage.

PATHOLOGY AND CLINICAL PATHOLOGY

E. T. White, Greenville

Staphylococcic Immunity.—R. H. Rigdon: Arch..Path. 24: 233, 1937. This is a review of the experimental and clinical uses of staphylococcic vaccines, toxoid and antitoxin and the following conclusions are derived from the paper.

(1) That staphylococcic vaccines have very little therapeutic effect on the staphylococcic infections either experimentally or clinically.

(2) Toxoid appears to be a very efficient antigen in the treatment of certain staphylococci infections of low virulence in the skin and may be of some value in certain cases of chhronic infections, such as osteomyelitis. Toxoid produces an increase in the antihemolysins, and this is frequently accompanied by clinical improvement.

(3) Staphylococcus antitoxin has a definite therapeutic value in treatment in certain cases of acute staphylococcic infections which are

accompanied by toxemia. The antitoxin may act by neutralizing the toxin or it may act on the staphylococci and increase the ease with which they are phagocytosed.

Vaginal Trichomoniasis.—Galub and Shelonsky. Diagnosis: On examination there is seen a profuse creamy, greenish yellow, bubbly discharge. The cervix usually shows erosions and hemorrhagic spots are seen in the vaginal mucosa. Take smears from this discharge and put in the tube containing 3 or 4 c.c. of modified Ringer's solution for microscopic examination. Trichomonas will remain alive and motile in this solution for 3 to 4 hours at room temperature. Put a few drops on a slide under a cover slip. A slight infection shows a few trichomonas, few leukocytes, and many epithelial cells and Doderlien bacilli. Severe infections show many trichomonas and pus cells with only a few epithelial cells.

They have also found trichomonas from secretion from the prostate and suggest this as a method of transmission.

Their treatment consists of a two weeks' treatment of 5 gm. of 1% silver picrate in kaolin applied in the office and six suppositories containing 2 gm. picrate are given to the patient for daily insertion. Repeat this same treatment the second week. This is usually sufficient treatment. Have patient report back after each menstrual period for several times for examination before discharging as cured.

Serum Complement Titer in Rheumatic Fever and Rheumatoid Arthritis.—M. Rachmilewitz and W. Silberstein: J. Lab. & Clin. Med. 22: 1240, 1937. In a study of serum complement titer in 45 cases they found that there is a marked decrease in the titer in active cases of rheumatic fever. As the clinical signs of activity subside the complement titer increases. In rheumatoid arthritis the complement titer is normal in all stages of the disease. They suggest that this reaction may be used in the differential diagnosis of the two diseases and as an aid in the prognosis and treatment of rheumatic fever.

SOUTHEASTERN SURGICAL CONGRESS

The Southeastern Surgical Congress will hold its Ninth Annual Assembly in Louisville, Kentucky, March 7, 8, and 9, 1938, at the Brown Hotel. The following men will present papers and conduct clinics during the assembly:

The Operative Treatment of Vesicovaginal and Related Fistulae.—Dr. Wayne Babcock, Baltimore, Md.

Sulfanilamide.—Dr. E. G. Ballenger, Atlanta, Ga.

A Consideration of the Treatment of Shock. —Dr. Alfred Blalock, Nashville, Tenn.

The Surgeon and the Pelvis.—Dr. W. H. Blake, Sheffield, Ala.

The Development of Ureteral Transplantation and Cystectomy—Two Original Methods. —Dr. Addison G. Brenizer, Charlotte, N. C.

Experience in Diagnosing Adrenal Tumors. —Dr. George F. Cahill, New York City.

Malunited Fractures of the Ankle.—Dr. Willis Campbell, Memphis, Tenn.

A Logical Treatment for Osteomyelitis.—Dr. Isidore Cohn, New Orleans, La.

Penetrating Wounds of the Brain.—Dr. C. C. Coleman, Richmond, Va., (Co-author Dr. Frank H. Mayfield, Cincinnati, Ohio).

The Operative Treatment of Essential Hypertension.—Dr. George W. Crile, Cleveland, Ohio.

Bronchial Tumors, Diagnosis and Treatment. —Dr. Edgar W. Davis, Washington, D. C.

Some Observations on Wound Healing.—Dr. W. D. Gatch, Indianapolis, Ind.

The Operating Room Diagnosis of Uterine Bleeding Clinic—The Treatment of Prolapse of the Uterus.—Dr. Arthur Hertzler, Halstead, Kansas.

Rehabilitation of Amputation Cases.—Dr. Henry H. Kessler, Newark, N. J.

Brain Abscess, Etc.—Dr. Joe E. J. King, New York City.

The Surgical Dyspepsias.—Dr. A. L. Lockwood, Toronto, Canada.

Modern Methods in the Treatment of Surgical Infections.—Dr. Champ Lyons, Boston, Mass.

Diagnosis and Treatment of Lateral Sinus Thrombosis Complicating Mastoiditis.—Dr. J. C. McDougal, Atlanta, Ga.

The Significance of Certain Changes in Fixed Tissue Cells Which Impart to Tissue a Modification in Their Function and an Acquired Resistance.—Dr. Wm. deB. MacNider, Chapel Hill, N. C.

Non-Penetrating Wounds of the Abdomen.—Dr. James McLeod, Florence, S. C.

The Treatment of Fractures of the Hip Joint by Extra-Articular Fixation with Adjustable Nails.—Dr. Austin T. Moore, Columbia, S. C.

The Neurosurgical Treatment of Hypertension.—Dr. Chalmers H. Moore, Birmingham, Ala.

The Interposition Operation for Prolapse Uteri.—Dr. Quitman U. Newell, St. Louis, Mo.

Some Recent Advances in Technique of Transurethral Prostatectomy.—Dr. Reed Nesbit, Ann Arbor, Mich.

Thrombophlebitis.—Dr. Alton Ochsner, New Orleans, La.

Management of Complicated Fractures of the Forearm.—Dr. W. Barnett W. Owen, Louisville, Ky.

Thyroids in Tidewater, Virginia.—Dr. C. C. Smith, Jr., Norfolk, Va.

Gunshot Wounds of the Abdomen—Their

Modern Management.—Ambrose Storck, New Orleans, La.

Diseases of the Gallbladder and Bile Ducts—Clinical Manifestations.—Dr. Augustus Street, Vicksburg, Miss.

Surgical Treatment of Peptic Ulcer.—Dr. Truesdale, Fall River, Mass.

Other Essayists:

Dr. J. K. Borland, Jacksonville, Fla.
Dr. E. B. Bradley, Lexington, Ky.
Dr. W. D. Haggard, Nashville, Tenn.
Dr. Charles G. Heyd, New York City.
Dr. Dean Lewis, Baltimore, Md.
Dr. Irwin Abell, Louisville, Ky.
Dr. Fred Rankin, Lexington, Ky.

The completed programs will be mailed out between the 15th of February and the first of March. Make plans to attend.

This is said to be the most extensive post-graduate surgical assembly held anywhere in the nation. For information, write Doctor B. T. Beasley, Secretary-Treasurer, 701 Hunt Building, Atlanta, Ga.

CENTRAL MEDICAL SOCIETY

The first monthly meeting of the New Year for the Central Medical Society was held on the Robert E. Lee Roof, Jackson, Tuesday, Jan. 4, at 6:30 p. m.

The program as announced by the secretary, Dr. Lawrence W. Long, Jackson, was as follows:

1. A Few Remarks by the New President.—Dr. J. T. Rainer, Yazoo City.

2. Uterine Prolapse.—Dr. D. T. Brock, Jackson.

Discussion opened by Drs. A. E. Gordin and W. F. Hand.

3. Cancer of the Rectum.—Dr. I. C. Huggins, Jackson.

Discussion opened by Drs. L. W. Long and L. B. Moseley.

4. Management of Patients Presenting Cardiac Symptoms.—Dr. A. G. Ward, Jackson.

Discussion opened by Drs. G. W. F. Rembert and Lee Lipscomb.

The officers of the society for 1938 are:

President.—J. T. Rainer, Yazoo City.

Vice-Presidents: Hinds County, A. G. Ward; Leake County, Frank Lacey; Madison County, R. M. Seawright; Rankin County, L. W. Willey; Scott County, George Townsend; Simpson County, W. J. C. Weimars; Yazoo County, H. E. Frizell.

Secretary, Lawrence W. Long, Jackson.

Treasurer, N. F. Kendall, Jackson.

Executive Committee: L. W. Long, D. W. Jones, J. P. Wall, J. T. Rainer, H. F. Garrison, and H. H. Puryear.

COAHOMA COUNTY MEDICAL SOCIETY AND CLARKSDALE HOSPITAL MEDICAL STAFF

The Coahoma County Medical Society and Clarksdale Hospital Medical Staff was called to order in the private dining room of the Alcazar Hotel immediately after lunch, Dec. 8. The minutes were approved as read. Fifteen members were present.

Election of officers for the first six months of 1938 resulted as follows:

Wm. P. Warfield, Clarksdale, President
D. H. Raney, Mattson, Vice-President
N. C. Knight, Clarksdale, Secretary-Treasurer

The secretary then made some announcements. The health officer, Dr. N. C. Knight, announced that J. C. Taylor, who allegedly called himself an Indian doctor, had been convicted for practicing medicine without a license and fined $200.00 and sentenced to six months in jail.

A plan for syphilis control was proposed by Dr. N. C. Knight and the following plan was unanimously adopted by the Society:

SYPHILIS CONTROL PROGRAM
Of The
COAHOMA COUNTY MEDICAL SOCIETY AND THE COAHOMA COUNTY HEALTH DEPARTMENT COOPERATING

Adopted December 8, 1937

MEDICAL SERVICE

1. Patients who are able to pay are to be treated by their private physicians and will not be rendered the treatment accorded to indigents.

2. The health officer is to encourage treatment by private physicians to indigents free of charge, also to encourage indigents to receive this treatment.

3. The following service is to be made available to indigent patients free of charge:

   a. Clinics for indigents are to be conducted free of charge in the offices of the health departments in Clarksdale and Friars Point and at some designated places in Lula and Jonestown, at certain periods of time each week.

   b. Only patients to be accepted for treatment who bear a **written** certificate from their doctor saying that the patient is indigent and is entitled to free treatments.

   c. All treatments will be administered free of charge by one or more private physicians who are members in good standing of the Coahoma County Medical Society. At each clinic the physicians will rotate in service in alphabetical order serving one month at a time.

The health officer is **not** to treat any of the patients unless requested to do so by the clinic physician and in no instance is to treat patients outside of the regular clinics. The health officer is to render any service requested by the clinic physicians.

d. All drugs, instruments, and other materials necessary for clinic service are to be furnished by the health department.

e. All necessary records; clerical, nursing, and laboratory service will be furnished by the health department.

f. A report on the financial condition of each patient will be sent to the physician who referred the patient to the clinic at least once every two months during attendance of the patient at the clinic and the physician may cancel the patient's request for clinic treatment at his pleasure. Any time a request is cancelled the patient will not be accepted for further clinic treatment unless a second written request is made. The report of the physician will be as comprehensive as possible.

* * * *

Dr. Brandon then reported that the Committee on Syphilis which was appointed in September had solved its problem and had no report to make. The committee was discharged.

Dr. Brandon reported for the Hospital Committee as follows: "The committee considered letters from Mr. J. H. Johnson and several hospitals and discussed the matter fully. The committee recommends that the state aid plan be passed up temporarily although this committee did not agree with some of the statements of Mr. J. H. Johnson, president of the Clarksdale Hospital Board of Trustees."

Dr. J. L. Levy made the following motion, which was seconded and carried: "It shall be the duty of the relations committee to attend each meeting of the hospital board. Each time the relations committee is elected but shall not succeed himself as chairman. The other two members of the committee shall not be eligible to succeed themselves, but two new members will be elected semi-annually at the time a new president is elected to the chair of the Coahoma County Medical Society and Clarksdale Hospital Staff."

There being no further business, the Society and Clarksdale Hospital Staff."

Clarksdale, N. C. Knight,
Dec. 23, 1937. Secretary.

DESOTO COUNTY MEDICAL SOCIETY

At a recent enthusiastic meeting of the DeSoto County Medical Society, the officers for 1937 were reelected as follows:— Dr. J. M. Wright, Hernando, president; Dr. H. M. Wadsworth, Hernando, vice-president; Dr. L. L. Minor, Route 4, Memphis, Tenn., secretary-treasurer-editor; Drs. D. C. and A. L. Emerson, Hernando, board of censors; Drs. C. W. Emerson, Hernando, C. M. Hammond, Walls, A. V. Richmond, Lake Cormorant, and president Wright, County Society hospital committee. Delegates to the state association are to be selected at the next meeting, the first Monday in April.

To commemorate the forty-third year of his membership in the local medical unit, Dr. A. L. Emerson entertained the members for dinner at the Spencer Hotel, the dinner was good and the occasion was a happy one. The Rev. H. P. Lewis was present and gave the invocation. We truly hope that the good doctor will be an active member for many more years and these contented and of service as they have been in the past.

Route 4, Memphis, Tenn. L. L. Minor,
Jan. 12, 1938. Secretary.

EAST MISSISSIPPI MEDICAL SOCIETY

The East Mississippi Medical Society held its last quarterly meeting at the Lamar Hotel, Thursday, December 14, 1937. After reading of the minutes of the last meeting and the new business transacted the following scientific program was given.

Some of the Old and Some of the New in Obstetrics.—Dr. W. H. Banks, Philadelphia.

Discussed by Drs. W. J. Anderson and C. M. Gully.

The Fathers of Modern Medicine.—Dr. J. P. Wall, Jackson.

The method of delivery and the choice of words used by the speaker held the utmost interest of the old and young alike. It aroused a keener interest and appreciation of the historical characters of medicine.

Some Medico-Legal Facts the General Practitioner Should Know.—Hon. Judge Amis.

Banquet.—Some 35 members and 10 guests attended.

Courtesy of the East Mississippi Medical Society.

Significance of Hoarseness.—Dr. T. E. LeJune, New Orleans, La.

In the presentation of this paper an appeal was made to the doctors to recognize the significance of early diagnosis of malignant conditions of the larynx by its characteristic symptom of hoarseness and the early bronchoscopic examination of all patients.

A motion picture film of the various types of tumors of the larynx was shown. The pictures alone was credit enough to the author of the paper as they were taken by him of actual cases under his observation and surgical care.

Election of officers for the year 1938 resulted in the election of Dr. C. H. Harrison, Philadelphia, to the office of president.

The meeting adjourned with a word of expression of cooperation during the year 1938 by the retiring president, Dr. T. G. Cleveland.

Meridian, Bob A. Cameron,
Dec. 29, 1937. Secretary.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

A regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, Jan. 11, and after supper served at 7 p. m., was called to order by the president, Dr. B. B. Martin, Jr. Reports were received from the secretary and treasurer, and the president outlined the program and plans for 1938.

The meeting was devoted to "The Business Affairs of the Profession," with Dr. James T. Nix, Dean of Louisiana State University Medical Centre, New Orleans, as the principal speaker on the subject, "The Economic Phase of the Practice of Medicine."

Dr. Nix reviewed the various activities undertaken by the medical profession to preclude the possibilities of so-called "state medicine," one of the principal being the plans of group hospitalization insurance which have been so successful in many states. Dr. Nix's address was discussed by Drs. S. W. Johnston, H. H. Johnston, A. Street, W. E. Johnston, P. S. Herring, F. M. Smith, L. S. Lippincott, G. W. Gaines, and W. H. Scudder. Dr. Nix closed.

Dr. Edley H. Jones presented the report of the clinic conducted by the Society at the State Charity Hospital for the month of December, 1937. It showed that patients were serviced from the counties of Adams, Bolivar, Claiborne, Coahoma, Copiah, Hinds, Humphreys, Issaquena, Jefferson, Jones, Lauderdale, LeFlore, Quitman, Sharkey, Sunflower, Washington, Warren, and Yazoo, and from the states of Alabama, Louisiana and Texas, a total of 700 clinic visits by patients.

The secretary's report for the year of 1937 showed:

Membership: Issaquena County, 2; Sharkey County, 8; Warren County, 29; Warren County (life membership), 2; Honorary, 3, a total of 44 members and a gain of four from 1936.

Eleven regular, and one special, meetings were held.

The total attendance for the year was 221 members and 107 guests, with averages of 18 members and 9 guests at each meeting.

Fifteen members or 34 per cent presented papers. Eleven guests presented papers.

There were six licensed physicians of Warren County non-members. All physicians of Issaquena County are members of the society.

As regards propects for 1938, Issaquena County has two licensed physicians, with estimated possible members two, 100 per cent; Sharkey County has 13 licensed physicians, with estimated possible members 7, 53 per cent; and Warren County has 41 licensed physicians, with estimated possible members 31, 76.5 per cent.

The average attendance of members for the year of 1937 was 41.1 per cent.

The program for the year of 1938 as adopted by the Society was as follows:

February 8: Pneumonia.—Committee: W. K. Purks, Chairman; A. K. Barrier, T. W. Huey, W. A. Smith.

March 8: Common Colds and Influenza.—Committee: Alston Callahan, Chairman; J. A. K. Birchett, G. S. Jarratt, E. H. Jones.

April 12: The Streptococcal Diseases.—Committee: John H. Dent, Chairman; C. J. Edwards, W. P. Robert, R. A. Street, Jr.

May 10: Malignant Disease.—Committee: S. W. Johnston, Chairman; I. C. Knox, E. B. Stribling, A. J. Messina.

June 14: Mental Disorders and Psychology in Medicine.—Committee: L. J. Clark, Chairman; M. J. Few, D. A. Pettit, H. B. Wilson.

July 12: Diseases of the Blood.—Committee: N. B. Lewis, Chairman; H. S. Goodman, H. S. Provine, D. P. Street.

August 9: Gonorrhea.—Committee: J. A. K. Birchett, Jr., Chairman; H. H. Haralson, W. C. Pool, F. M. Smith.

September 13: Surgical Diseases of the Gastro-Intestinal Tract. — Committee: P. S. Herring, Chairman; B. B. Martin, W. H. Parsons, A. Street.

October 11: Diseases of Nutrition.—Committee: H. B. Goodman, Chairman; G. W. Gaines, H. H. Johnston, W. H. Scudder.

November 8: Roentgenology and Radiology. —Committee: J. L. Hall, Chairman; W. E. Johnston, G. P. Sanderson, G. M. Street.

December 13: Annual Meeting.

At each meeting, it is expected to have one guest speaker from outside the society, one speaker from the society, and one clinical case report.

TRI-COUNTY MEDICAL SOCIETY OFFICERS—1938

President—R. B. Zeller, Hazlehurst

Secretary—J. C. McGuire, Hazlehurst

Vice-Presidents: Copiah County, C. L. Simmons, Hazlehurst; Lawrence County, J. W. Wilson, Monticello; Lincoln County, W. R. May, Brookhaven; Walthal County, R. E. Sylvester, Tylertown.

Delegates to the Mississippi State Medical Association: Copiah County, J. C. McGuire, Hazlehurst; Lawrence County, D. T. Langston, New Hebron;Lincoln County, R. C. Massengill, Brookhaven; Walthal County, A. B. Harvey, Tylertown.

Board of Censors: Copiah County, J. F. Scarborough, Hazlehurst; Lawrence County, B. S. Waller, Silver Creek.

Chairman of Committee on Medical Defense Protection.—O. N. Arrington, Brookhaven.

Hazlehurst, R. B. Zeller,
Dec. 18, 1937. President.

WINONA DISTRICT MEDICAL SOCIETY

The Winona District Medical Society met December 16, at the Wisteria Hotel, Winona. A fine program was held and officers elected. Dr. T. J. Brown, Grenada, was elected president, and Dr. S. B. Caruthers, Grenada, was elected secretary and treasurer. The following was the program:

1. Luncheon at 1:00 o'clock.
2. "A Practical Approach to the Problem of Food Idiosyncrasy," Dr. W. C. Chaney, Memphis, Tenn.
3. "Fracture About the Hip"—Dr. T. H. Blake, Jackson.
4. "Obscure Fever of Infants and Children" —Dr. R. E. Wilson, Greenwood.

Grenada, J. K. Avent,
Dec. 18, 1937. County Editor.

DESOTO COUNTY

Heart disease seems to be on the increase and the percentage of deaths therefrom is larger among physicians than other professions. Watch your habits.

Between the ages of four and 65 in the United States, motor vehicles take the greatest accident toll. But beyond 65 years, falls are the principal cause of death. Watch your steps.

In yonder years when a child, did you ever wear a nutmeg around your neck for sites?

A patient came in this morning saying that he was a subject of "sweet diabetes."

This item was clipped from the Sunday's Commercial: "Want the cash, so announces members of the Marshall County Medical Society who have made a list of all delinquents, have placed the accounts in the hands of doctors throughout the county. Insisting that no service will be refused worthy patients, the doctors say that those who are able to pay and do not, will not receive attention unless cash is laid on the barrel head."

"May I never see in the patient anything but a fellow creature in pain. Grant me strength, time and opportunity always to correct what I have acquired, always to extend its domain for knowledge is immense and the Spirit of man can extend infinitely to enrich itself daily with new requirements. Today he can discover his errors of yesterday, and tomorrow he may obtain a new light on what he thinks himself sure of today."

"Equipped with a well balanced education in his profession, and fulfilling the principles outlined in the oath of Maimonides, the surgeon can formulate as accurately as is humanly possible. that great principle of surgery-surgical judgement." J. W. D. Dicks, M.D.

I wish every physician in this county would join his local medical society. As I see it there is every reason why he should and none why he should not.

In 1937 we had a 90% plus membership.

The Mid-South Medical Assembly plans an excellent program and expects an unusual attendance in its meeting in Memphis during February.

Route 4, Memphis, Tenn. L. L. Minor,
Jan. 12, 1938. County Editor.

GOLDEN WEDDING

Fifty years ago, Tuesday, December 7, Dr. T. J. Brown and the then Miss Jimmy Bibby, were married in the home of Mrs. Brown's parents at Coffeeville, Rev. Dr. R.S. Thomas, Presbyterian minister, performing the ceremony.

Dr. and Mrs. Brown moved to Grenada in January 1890 and have made their home here since that time. Dr. Brown has practiced medicine for 52 years and brought into the world many of the citizens now living in this community, as well as those who have gone on before or moved away.

We were talking with Dr. Brown one day this week and he said: "I am seventy-six years old and in looking back over my life I can't see that I have accomplished much, but there is one thing that I can say: on January 1, 1938 we will have lived in our present home on the corner of College and Margin Streets for forty-seven years and we have so lived that no 'Night Riders' or members of the 'Klu Klux Klan' have ever visited us."

We can't agree with Dr. Brown, for a man that has lived for seventy-six years with home surroundings such that he is privileged to enjoy his own Golden Wedding, and reared three daughters, of all whom he can be justly proud, has accomplished much.

Mrs. Brown was one of the dearest friends our mother had, we know this from what our father has told us, and both Dr. Brown and Mrs. Brown are our friends. And that is the reason that we wish for them many more years of happy married life.—Grenada Sentinel.

HUMPHREYS COUNTY

Mrs. Robert Jackson has returned from a five weeks' visit with her father, Mr. Bagwell, in Daytona Beach, Fla.

Dr. and Mrs. W. S. Taylor, Isola, had several of their relatives from Winona with them for the holidays.

James Crider, who is attending business college in Bowling Green, Ky., spent a couple of days with his uncle and aunt, Dr. and Mrs. J. W. Jackson, enroute to his home in Fort Myers, Fla., to spend Xmas.

Miss Lillian Graft of Nashville, Tenn., has been visiting her sister, Mrs. J. C. Higdon.

Dr. and Mrs. Guy Bryan were happy to have their daughter and husband, Mr. and Mrs. Milton Branton, of Dayton, Texas, for a few days in December.

Dr. Gorden Keith Rogers has returned to New Orleans after a visit here with relatives.

Dr. Owen Royce of Tulsa, Okla., spent Xmas with his parents in Isola.

Belzoni, J. W. Jackson,
Jan. 7, 1938. County Editor.

LAUDERDALE COUNTY

Dr. O. A. Schmid has announced the opening of offices in Threefoot Building, Meridian. Practice limited to neuropsychiatry.

LEFLORE COUNTY

The regular meeting of the staff of the Greenwood-Leflore Hospital was held at the hospital at 6:30 p. m., December 2, with only nine doctors present, as most of our doctors were in New Orleans attending the meeting of the Southern Medical Association. Those present, however, enjoyed a nice steak supper.

Dr. and Mrs. A. F. Charlton, Berclair, visited relatives in Nashville, Dec. 5.

Drs. Hudspeth, Ruleville; Myers, Indianola; Holmes, Winona; Edgar Giles, Avalon; Holman, Carrollton; and C. N. D. Campbell, Thornton, were visitors to Greenwood during December.

Dr. and Mrs. W. E. Denman, Dot and Jean attended the graduating exercises of the University of Tennessee Medical School, December 20, to see W. E. Denman, Jr., receive his M.D. degree. He will serve his internship at New York Poly-clinic, beginning July 1.

Dr. and Mrs. J. C. Adams and daughters spent the Xmas holidays visiting relatives in New Orleans.

Dr. and Mrs. C. J. Pittman and family, Ruleville, spent Xmas in the home of Mr. and Mrs. W. M. Loyd, Greenwood.

Dr. Tate Carl, Memphis, spent Xmas in the home of his father and mother, Mr. and Mrs. A. F. Carl, Greenwood.

Dr. and Mrs. L. F. Hightower, Itta Bena, had as their guests during the holidays, Dr. D. G. Davenport, Lexington, Ky., and also their son and daughter, Dr. and Mrs. J. R. Hightower, Natchez.

Dr. and Mrs. W. B. Dickens had as their guest during the holidays their daughter, Miss Dorothy Dickins, Mississippi State College, and all the family spent Sunday, December 26, in the home of Mr. and Mrs. John Dickins, Leland. Dr. and Mrs. R. D. Dickins, Monticello, Ark., joined the family for the day.

Dr. and Mrs. R. B. Yates enjoyed having with them their daughter, Miss Marjorie, for the holidays. She is attending Sophie-Newcomb, New Orleans, La.

Dr. W. B. Best, Scobey, is visiting in the home of his daughter, Mrs. Collier in Greenwood.

Greenwood, W. B. Dickins,
Dec. 30, 1937. County Editor.

WASHINGTON COUNTY

Dr. P. G. Gamble, Mrs. Gamble and their children, Paul and Mary, spent a few days at the Christmas season in Nashville, Tenn., with the family of Mrs. Gamble.

Dr. C. T. Berry, Greenville, who has conducted a clinic recently organized for treatment of indigent venereal cases under sponsorship of the local Medical Society, Public Health Department and Red Cross has been awarded a scholarship for the study of syphilis at Vanderbilt School of Medicine. The scholarship is awarded by the U. S. Public Health Service and is for a period of one month, January, 1938.

On January 1, Dr. F. M. Acree and Dr. J. L. Salmon moved to their new office building on N. Shelby Street, Greenville.

The officers of the Delta Medical Society met at Hollandale, December 19. The vice-president from Washington County, Dr. R. C. Finlay, was in attendance.

Dr. J. L. Salmon and wife, Greenville, visited relatives in Kentucky and Tennessee during holiday season.

The Washington County component of the State and National Tuberculosis Association held a recent meeting at the Greenville Hotel, at which Mrs. George Archer was elected president and re-organization of the local association was effected.

At this meeting the local tuberculosis association endorsed several recommendations brought before them by a committee of the local medical society with Dr. O. H. Beck as chairman.

These resolutions were principally to the county board of supervisors and were to the effect that (1) the board of supervisors should undertake to pay $1.00 per day to the State Sanatorium for the care of all early cases of tuberculosis from Washington County; (2) that the board should construct a ward at the county alms house, for the isolation of at least twenty indigent far advanced tubercular patients; (3) that the physician in charge of the alms house, Dr. C. P. Thompson, should have a moderate increase in his compensation for this additional work; (4) that two resident nurses be employed to care for these cases; and (5) that a third nurse be employed to supervise hygenic conditions surrounding tubercular patients cared for in their homes and to engage in educational projects for the prevention of tuberculosis.

It was estimated that the first year's cost of this program would be $20,000.00. The recommendations of the doctors' committee has already been endorsed by many local civic organizations. At the present writing the board of supervisors has not yet held a meeting to consider the recommendations.

Greenville, J. A. Beals,
Jan. 5, 1938. County Editor.

WINSTON COUNTY

Dr. Emmett Kemp was in the city visiting his father whose health is bad. Dr. Kemp is connected with the staff of the State Sanatorium.

Dr. T. D. Dempsey, Senate, Mo., is visiting his parents this week.

Mr. and Mrs. Tom Parkes and children are visiting their uncle, Dr. W. W. Parkes, of our city. They have made their home for some years in Marianna, Ark.

Dr. and Mrs. Virgil McMillan and children are visiting their kin in the city this week. Dr. McMillin's home is in Texas.

Mr. and Mrs. Jack Dempsey and son, the son of the late Dr. Walter Dempsey, are spending the holidays here with relatives. Jack is connected with the Grenada Bank at Grenada.

The doctors of this section are not so busy, as there is not so much sickness here.

Louisville, M. L. Montgomery,
December 31, 1937. County Editor.

HOSPITALS

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

Mississippi State Hospital Association, Ninth Annual Session, Jackson, April 18, 1938.

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary: First Friday, each month, 6:30 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital: Third Wednesday, each month, 7:30 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12:00 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p. m.

George C. Hixon Memorial Hospital: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium: Third Thursday, each month, 8:00 p. m.

Greenwood-Leflore Hospital: First Thursday, each month 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital: Second Thursday, each month, 7:00 p. m.

Houston Hospital: Fourth Friday, each month, 7:00 p. m.

Ivy Hospital: First Monday, each month, at 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p.m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p.m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 8:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.

McGee General Hospital: Twenty-fifth each month, 6:00 p. m.

Mayes Hospital: First Monday, each month, 2:30 p. m.

McComb City Hospital: First Tuesday, each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday, each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Hospital: Second Thursday, each month.

Northeast Mississippi Hospital: First Monday, each month, 7:00 p. m.

Oktibbeha Hospital: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veteran's Hospital, Gulfport: Every Monday, Tuesday, Wednesday, and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month, 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

VICKSBURG HOSPITAL, INC., AND VICKSBURG CLINIC STAFF MEETING

The staff of the Vicksburg Hospital and Clinic held its regular meeting Thursday, November 18. Following discussion of mortalities that had occurred during the preceding month and the transaction of routine matters, the following scientific program was presented:

1. Case Report: Perinephritic Abscess.—Bradley C. Bronson, M.D.
2. The Problem of the Pre-eclamptic.—I. C. Knox, M.D.
3. Discussion of Current Literature.—Staff.
4. Demonstration of Roentgenologic Studies.—W. K. Purks, M.D.

W. H. Parsons, Sec'y.

Case Report: Perinephritic Abscess*.—Bradley C. Bronson, M.D., Vicksburg.

Perinephritic abscess while in no sense a surgical rarity is nonetheless, in our experience, not of frequent occurrence. That difficulty exists in diagnosing this lesion may be divined from even a casual acquaintance with the current literature. In the case about to be reported all the clinical evidence of an infection of the perirenal space existed and the diagnosis was rather obvious. Those interested in the problem, particularly from a diagnostic point of view are referred to the excellent recent report of Rusche and Bacon[1]. In the article referred to the authors report ten cases erroneously diagnosed as perinephritic abscess. Any patient having fever of undetermined etiology should be suspected of having this condition.

Case Report.—The patient, a white male, 19 years of age, registered at the Vicksburg Hospital on the service of Dr. W. H. Parsons, complaining of fever and of pain in the left loin radiating to the left hip and thigh. The pain was exaggerated on extension of the thigh and it was noted also that chills and fever had occurred. The significant point in the past historp was that there was a general furunculosis about three months ago.

Physical examination revealed the temperature 103°F. There was a definite leukocytosis with preponderance of neutrophiles. There was swelling and tenderness in the left loin and there was definite pain on extension of the left leg. Roentgenologic study of the abdomen showed an abscence of the left iliopsoas shadow as contrasted with a well demarcated shadow on the right side.

It was quite apparent that in all probability a perinephritic abscess existed and at surgery a large perinephritic abscess was found and drainage was established. The patient's recovery was entirely uneventful. Cultures of the pus from the abscess and cutaneous furuncles which persisted revealed staphylococcus albus as the offending agent.

This case, briefly presented, is of course typical in that there was present a history of a focus of infection, there was sudden onset of pain and tenderness with swelling in the region of the left loin and roentgenologic study showed an absent psoas shadow. The diagnosis was, therefore, in this instance, quite definite in contrast to the state of affairs that unfortunately exists.

Vicksburg, Dec. 17, 1938.

VICKSBURG SANITARIUM

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held Monday, Jan. 10, and after a supper served at 6:30 p. m., was called to order by the president, Dr. G. M. Street, with ten members and four guests present.

Reports from the Records Department and Analysis of the Work of the Hospital.

Special Case Reports:

1. Banti's Disease Complicated by Acute Torsion of the Pedicle of the Spleen.—Dr. G. M. Street.

Discussed by Dr. J. A. K. Birchett, Jr.

2. Fecal Fistula Following Suppurative Appendicitis.—Dr. J. A. K. Birchett, Jr.

Discussed by Drs. George Street, Gaines. Dr. Birchett closed.

3. Extensive Compound Fracture of the Superior Maxilla.—Dr. R. A. Street, Jr.

Discussed by Drs. George Street, J. A. K. Birchett, Jr.

Three-Minute Reports of the Literature of the month.

Dr. W. E. Johnston—New and Improved Metal to be Used in the Fixation of Fractures.

The next meeting of the staff will be on Thursday, February 10.

ABSTRACT: FECAL FISTULA FOLLOWING SUPPURATIVE APPENDICITIS

J. A. K. Birchett, Jr., M.D.

Patient.—White, female, age 23, stenographer.

Present Complaint.—Drainage of feces and pus from abdominal wound.

---

*From the Surgical Service of Dr. W. H. Parsons, Vicksburg Clinic, Vicksburg.

[1] Rusch, C. F. and Bacon, S. K.: Unusual Condition Stimulating Perinephritic Abscess with Report of Ten Cases. Jour. Urol. 34:504, December, 1935.

History of Present Complaint.—About the latter part of May, 1937, had acute abdominal pain which she thought was a simple attack of indigestion. For relief, she took a large dose of milk of magnesia and was confined to bed for two or three days with some abdominal soreness and fever. After this condition subsided, she got up and went about her usual duties. A few days later, approximately two weeks after the first attack, she had an acute right-sided abdominal pain, this time with fever and nausea. There were no frequent stools or straining on the lower bowel. There were no urinary symptoms. The family physician was called to see her in this attack, and he made a diagnosis of appendicitis and prescribed ice bag and sedatives. Twenty-four hours after she was seen by the family physician, the pains became much worse, and there was a mass in the right lower abdomen. I was called to see her at that time and made a diagnosis of appendicitis, acute, with suppuration and abscess formation, and advised immediate hospitalization and surgical intervention.

Family History.—Father died at 38; mother living and well, brother living and well. No history of tuberculosis or cancer.

Past History.—Usual childhood diseases, no serious illnesses. No typhoid; no pneumonia. Digestive history normal. Menstrual history began at 13, regular, no pain.

Clinical Laboratory.—Wassermann negative; urine essentially negative. Blood count: hb. 87%; erythrocytes 4,980,000; leukocytes 13,700; differential: small lymphocytes, 23%, large lymphocytes 2%, neutrophils, mature, 70, band forms, 4; eosinophils 1; no malaria found.

Procedure.—Under general anaesthesia, a right rectus incision was made, encountering a very large, thickened, edematous appearing cecum and terminal ileum, which were closely adherent by thick fibrous bands. After the cecum and ileum were separated by sharp dissection of the adherent bands, the appendix was found retrocecal and lying on the psoas muscle to which it was firmly adherent, the appendix having burrowed through the posterior peritoneum and invaded the muscular fibers. The appendix was gradually dissected from its bed, the distal third of which was mostly a suppurative mass. There was some free bleeding from the acutely inflamed muscle tissue and this was controlled with a pack. The mesentery was ligated at the base of the appendix, and the appendix was ligated with No. 2 chromic catgut, and the cut surface was cauterized with phenol. No attempt was made at inversion of the appendiceal stump because we do not use that technique any longer and, if we had cared to have inverted the stump, it would have been almost impossible, due to the thickness of the cecal wall from the marked induration of the area. Four soft rubber tube drains, packed with reyfull fiber, were placed behind the cecum and in the region of the abscess. The abdomen was then loosely closed around the exit of the drains. The convalescence of the patient was uneventful, her fever being 101°F on the third day, which gradually subsided, and the drainage was purulent for only four or five days. The tubes were removed on the seventh day. The patient was able to be discharged on the twelfth postoperative day, with only a slight amount of drainage in the lower end of the wound. She remained in bed at home for two weeks, being up and about the house, but not going out during that time. However, after this period of rest, she was permitted to go automobile riding and to go about her usual accustomed duties. Her general condition was excellent for a period of a month, when she began to complain of severe pains over the right lumbar region and of the sensation of "electric shocks," as she stated, in her right side in the region of the scar, and there was fever and sweating and other evidence of abscess formation and sepsis. Therefore, the wound, which was bulging, was opened up by a small incision and a pint of foul-smelling purulent, material was evacuated and two small drains placed in the opening. This abscess was, unquestionably, the result of a small localized area of infection deep in the wound, which was not drained by the tubes and which, after the tubes were removed, was unable to break into a discharging outlet and, therefore, formed a large purulent collection, which burrowed to the surface. Following the evacuation of the abscess, in a few days, a distinct fistula developed, through which large quantities of feces were discharged, making the patient very uncomfortable and causing much eroison of the abdominal wall. The patient was given a barium enema to see if there was any obstruction in the colon, which was retarding the fecal stream. The colon showed good filling and there was no evidence of any obstruction. The possibility of a tuberculous or amoebic infection in the cecum was considered, but examination did not bear this conjecture out.

Procedure.—As the patient's general health was good, she was advised to return to the Sanitarium for surgical closure of the fistula, after repeated inpections of lipiodol and Beck's paste and even a series of prontosil injections failed to bring about any improvement in the discharging fistulous tract. Therefore, on Dec. 5, the patient presented herself for surgery and, under general anaesthesia, an elliptical incision was made around the site of the opening of the tract, and the tract was dissected down to the lateral wall of the cecum. The tract was ligated and inverted into the cecum, and the serosal areas were covered over by a double row of interrupted Lembert's sutures. These, in turn, were covered by a tab of omentum, which was adherent in the region. The wound was closed with one small tube drain into the peritoneum. Patient made an uneventful recovery, there being no evidence of any peritoneal infection or irritation, no abnormal rise of fever. Elimination was normal after the fourth day. The tube drain was removed on the sixth day, the wound being clean and remaining clean. The deep sutures were removed on the twelfth day. Patient was discharged on the thirteenth postoperative day, and has had no discomfort whatsoever. There is no pain in the right lower quadrant or right lumbar region, and her elimination is normal.

Surgical Pathology.—Acute purulent inflammatory, granulation tissue, much edema, interstitial blood, chronic inflammatory. A few areas show giant cells about small abscesses with hyalin foreign bodies, irregular, in the middle. Diagnosis: Acute and chronic inflammatory.

HONOR ROLL

The following have contributed to this number of the official journal:

County Editors: DeSoto, L. L. Minor; Grenada, J. K. Avent; Humphreys, J. W. Jackson; Lauderdale; Leflore, W. B. Dickins; Washington, J. A. Beals; Winston, M. L. Montgomery.—7.

Societies: New Orleans Graduate Medical Assembly; Southeastern Surgical Congress; Central Medical Society, L. W. Long; Coahoma County, N. C. Knight; DeSoto County, L. L. Minor; East Mississippi, Bob A. Cameron; Issaquena-Sharkey-Warren Counties; Tri-County, R. B. Zeller; Wiona District, J. K. Avent.—9.

Medical Literature: Temple Ainsworth; Harvey F. Garrison; J. A. Beals; A. Street; E. T. White.—5.

Hospitals: Clarksdale Hospital, N. C. Knight; Vicksburg Hospital, W. H. Parsons; Vicksburg Sanitarium.—3.

Others: F. J. Underwood; Emma Gay.—2.

WOMAN'S AUXILIARY

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY AND AUXILIARY

Dr. and Mrs. E. L. Wilkies were surprised with a party while in Olive Branch, Miss., on their twenty-fifth wedding anniversary. Lovely gifts and silver were showered upon this popular couple by their old friends and members of their wedding party.

Dr. and Mrs. William Warfield spent Christmas in Tunica and Memphis with relatives.

Dr. and Mrs. Thack G. Hughes had the privilege of having as their guests recently, Sam Garner Harris and two attractive daughters, Nina Weir and Mary Faith, of Little Rock, Ark. While in Clarksdale Mrs. Harris was the recipient of many social courtesies by her girlhood friends.

Dr. and Mrs. Julius Long welcomed a number of out-of-town relatives from Shreveport, La., for the holiday season.

Dr. and Mrs. Frank Kilpatrick and small daughter, Mary Beth, spent the New Year holidays in New Orleans.

Dr. Lacy Biles was recently elected president of the Tallahatchie Medical Society. He and Mrs. Biles are valued members of the Clarksdale and Six Counties Medical Society and Auxiliary.

Dr. Waggener recently had as his guest his father from Tennessee.

Dr. and Mrs. M. J. Luster and family are rejoicing over the recovery of their son, Tommy, who has been quite ill.

Friends of Dr. J. W. Primrose, who was operated upon at Johns Hopkins Hospital in the summer, are delighted to see him back at his office again.

Dr. Jimmy Biles, of Memphis, was a guest of his parents, Dr. and Mrs. J. D. Biles for the holidays in Sumner.

Dr. and Mrs. J. L. Walker of Lambert went to New Orleans for the Sugar Bowl game.

Dr. and Mrs. William Miller and small daughter have moved from Clarksdale to Memphis. where he will practice in the future.

Dr. and Mrs. J. P. Carr have as their guests, their son, Martin Smith and daughter, Amy Smith, who are enrolled in Mississippi State College and Sophie Newcomb.

Dr. and Mrs. John Morris were visitors in Tylertown for the holidays.

Dr. and Mrs. W. L. Gates had for their guest, last month, their son, Glenn Gates, who is studying medicine in the East.

We regret the serious illness of Mrs. John Darrington, Yazoo City, who is at present in the Mayo Clinic.

MEDICAL AUXILIARY ELECTS OFFICERS

The December meeting of the Medical Auxiliary met in the home of Mrs. C. A. McWilliams with Mesdames McWilliams and W. W. Cox as hostesses. A paper which had been prepared by Mrs. Archie Hewes on Recent Development in Medicine was read by Mrs. E. C. Parker. One of the features of the meeting was the election of officers for 1938. Mrs. Archie Hewes, president; Mrs. M. M. Snelling, president-elect, and Mrs. E. B. Van Ness, treasurer, were re-elected; Mrs. H. K. Rouse, Jr., secretary; Mrs. D. J. Williams, parliamentarian and historian; and Mrs. E. C. Parker, vice-president. The auxiliary will hold a call meeting Friday, January 7, in the home of Mrs. Parker. This meeting will replace the regular monthly session.

Those present at the December meeting were Mesdames W. W. Cox, M. M. Snelling, A. C. Hewes, D. J. Williams, H. K. Rouse, Jr., C. A. McWilliams, Emma Gay, E. C. Parker and guest, Mrs. Willa Files. The hostesses served a tea plate.

NEWS FROM THE SOUTH MISSISSIPPI MEDICAL AUXILIARY

Dr. and Mrs. P. E. Smith have named their little daughter who arrived Nov. 25, Katherine Arnold. She is being given a very warm welcome by her brother, P. E., Jr.

MEDICAL AUXILIARY GIVES LOVELY BUFFET SUPPER

One of the most enjoyable affairs of the pre-Christmas season was the buffet supper given by the Hattiesburg members of the auxiliary to the South Mississippi Medical society of which Mrs. J. P. Culpepper, Jr., is president. The supper was given Thursday evening at 6 o'clock at the Forrest Hotel.

The Venetian room of the hotel, with its gay Yuletide decorations, was the setting for the party. Baskets of holly, autumn leaves and yupon were used to advantage.

In one corner of the room a white Christmas tree, studded with blue lights, shed a soft glow over the scene. Potted plants and Christmas lights added to the decorations. Mesdames C. C. Buchanan, Ernest Bethea, Nollie Felts and H. C. McLeod composed the decorating committee.

Mrs. L. B. Hudson, Jr., greeted the guests at the door. A turkey dinner was served buffet sytle from a lacedraped table. The centerpiece was a seven-pronged silver candelabrum, holding lighted red tapers. A wreath of holly encircled its base.

Coffee was poured by Mrs. J. P. Culpepper, Jr., and Mrs. C. C. Buchanan served the sliced turkey. Individual plum puddings, topped with whipped cream, each holding a minature lighted candle, were served from silver trays. Others assisting in serving were: Mesdames C. V. Temple, R. R. Halfacre, Ernest Bethea, Richard H. Clark, L. B. Hudson, Jr., T. E. Ross, Jr., and Nollie Felts.

Guests were seated at small tables, each centered with a small blue bud vase holding silver berries. During the supper a group of students from S. T. C., under the leadership of Miss Mattie Perry, presented a program of solo and group tap dancing numbers. One dance was a well executed demonstration of the Big Apple. Miss Lida Frances Gilliam served as accompanist for the dancers.

Each year the auxiliary celebrates "Doctor Day" with a Christmas party. Guests are members of the South Mississippi Medical Society and their wives.

Those enjoying the hospitality of the auxiliary Thursday were: Dr. J. H. Newcomb, of Richton; Drs. Joe Green, Kittrell, R. Cranford, H. L. McCormick, of Laurel; Dr. Matthis, of Beaumont; Drs. H. P. Smith and T. B. Robinson, of New Augusta; Mrs. J. T. Sanders, Gilbert Anderson and Shirley Lyons, of New Orleans.

Drs. V. B. Martin and Ketty, of Picayune; Drs. C. C. Hightower, P. E. Smith, H. L. McKinnon, Meade, Mr. and Mrs. J. P. Culpepper, Jr., Dr. and Mrs. Richard H. Clark, Dr. and Mrs. C. C. Buchanan, Dr. and Mrs. L. B. Hudson, Jr., Dr. and Mrs. Ernest Bethea, Dr. and Mrs. H. C. McLeod, Dr. and Mrs. C. V. Temple, Dr. and Mrs. Nollie Felts, Mrs. T. E. Ross, Jr., and Mrs. R. R. Halfacre, all of Hattiesburg

---

Mrs. Mattie Bradley Powell, widow of the late Walter W. Powell, passed away December 3, 1937, at the home of her daughter, Mrs. C. C. Hightower, in Hattiesburg, where she had resided for 25 years. She was 77 years of age at the time of her death.

Born in Gainesville, Georgia, September 25, 1860, the daughter of the late A. W. Bradley and Mary Bradley, Mrs. Powell came to Corinth, Miss., to settle at the age of four, immediately following the close of the Civil War. There she was reared and married in 1884. Her husband died in 1921.

Surviving her are two daughters, Mrs. C. C. Hightower, of Hattiesburg and Mrs. W. M. Sellers, of Austin, Texas; one son, L. W. Powell, of Picayune; two grand daughters and five grand sons. One son, C. E. Powell, of Georgetown, died in 1933.

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical
Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tennessee

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 5-1388
899 Madison Ave. Memphis, Tenn.

JOHN W. RAGSDALE, M.D.
CHESTER D. ALLEN, M.D.
327 Medical Arts Bldg.
Memphis, Tenn.
Urology and Urological Surgery

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as Applied in This Field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Phones: Off: 6-1923 —:— Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Mississippi

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Mississippi

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WILLIAM MILTON ADAMS, M.D.
Practiced Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tennessee

HENRY G. HILL, M.D.
Clinic 847 Madison Avenue
Memphis, Tennessee
Practice Limited to:
Diseases and Injuries, Bones and Joints, Cripples
and Deformities, Braces and
Appliances

FRANK W. SMYTHE, M.D.
Practice Limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-Surgery
Physicians and Surgeons Bldg.
Memphis, Tennessee
Phones: Off: 6-3288 Res.: 29645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tennessee

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tennessee

GILBERT J. LEVY, M.D.
Practiced Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tennessee

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

DR. WILLIAM F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Mississippi

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Building
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Mississippi

ROBERT H. BRUMFIELD, M.D., F.A.C.S.
General Surgery and Urology
McComb, Mississippi

DR. J. W. LIPSCOMB, JR.
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Mississippi

LAWRENCE W. LONG, B.A., M.D., F.A.C.S
410-412 Standard Life Bldg.
Jackson, Mississippi
GENERAL SURGERY
Surgical Diseases of Children

F. M. ACREE, M.D.
Greenville, Miss.

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

WILLIAM T. SATTERFIELD, M.D., F.A.C.S.
General Surgery
McLemore Clinic
919 E. McLemore Avenue
Memphis, Tennessee

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians and Surgeons Bldg
(899 Madison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye. Ear, Nose and Throat
and
Bronchoscopy
Princess Theater Building
Columbus, Miss.

W. L. WILLIAMSON, M. D. F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

WILLIAM T. BLACK, M.D., F.A.C.S.
Gynecology
Medical Arts Building
Memphis, Tenn.

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg), F.A.C.S.
Genito-urinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

DOUGLAS D. BAUGH, M.D.
—CLINIC—
Diagnosis—Internal Medicine
First National Bank Building
Columbus, Miss.

DR. H. RANDOLPH UNSWORTH
Practice Limited to Nervous and Mental Diseases
Hours: 1 to 5, by appointment.
10 to 12 on Saturdays
Office: 819 Maison Blanche Building.

WALTER W. ROBINSON, M.D.
Crisler Clinic
1291 Union Avenue
Memphis, Tennessee
Specializing in
PATHOLOGY
ROENTGEN
DIAGNOSIS and THERAPY

DR. J. CASH KING
formerly at John Gaston Hospital
and University of Tennessee
announces the opening of his office
for the practice of RADIOLOGY
902 Madison Avenue
Memphis, Tenn. Telephone 6-7460

SHIELDS ABERNATHY, M.D., F.A.C.S.
HOWARD H. ASHBURY, M. D., Oncologist
CLINIC
For General Surgical and
Neoplastic Diseases
Complete Modern Radiological Equipment
1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING
I. G. Duncan, B.S., M.D., F.A.C.S.
J. S. Fleming, M.D.
GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION
Suite 1500-06 Commerce Title Bldg
Memphis, Tennessee

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS, Clinical Pathology
MARJORIE WADE, Bacteriology.

THE WOMAN'S CLINIC
W. T. Pride, M.D.
Carey Bringle, M.D.
James M. Brockman, M.D.
Gynecology Obstetrics
1460 Madison Avenue Memphis, Tenn.

R. L. RONALD, M.D.
207-8 Miazza-Woods Bldg.
Meridian, Mississippi
Office Hours: 10 to 12 a. m.—3 to 5 p. m.

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

EDWARD CLAY MITCHELL—QUINN CLINIC
1073 Madison Avenue
Memphis, Tennessee
Practice Limited to
Infant Feeding and Diseases of Children
Hours: 10:00 A. M. to 12:00 M.
2:00 to 5:00 P. M.
By Appointment Phone 7-1307

DUANE CARR, M.D.
Diseases of the Chest
Endoscopy — Thoracic Surgery

Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

Telephones: 8-3662; 2-3226; 2-2138

THE MEDICAL CLINIC
910 North State
Jackson, Mississippi
George W. Owen, M.D., Allergy
T. E. Wilson, M.D., Cardiology & Internal Medicine
John Bullock, M.D., Pediatrics: Allergic Diseases of Children
Gayden Ward, M.D., Internal Medicine, Gastroenterology
Robin Harris, M.D., Eye, Ear, Nose & Throat: Diagnosis.
Diagnostic Facilities: X-ray, Electrocardiogram, Basal Metabolism Complete Clinical Laboratory, Allergy Laboratory.

Compliments
JAMES W. BODLEY, M.D.
Memphis, Tenn.

ISAAC C. HUGGINS, M.D.
Practice limited to
UROLOGY and PROCTOLOGY
522-23 Standard Life Bldg.
Jeckson, Miss.

DR. HENRY B. GOTTEN
INTERNAL MEDICINE
DIABETES
20 S. Dunlap
Memphis, Tennessee

T. E. WILSON, M.D.
Practice Limited to Internal Medicine
Office 522 Standard Life Bldg.
Jackson, Miss.

GEORGE GARTLY, M.D., F.A.C.S.
SURGERY and GYNECOLOGY
1014 Farnsworth Building
Memphis, Tennessee

JOHN C. HENTHORNE, M.D.
— Pathologist —
Mississippi Baptist Hospital
Jackson, Mississippi

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

THE SOUL OF THE SURGEON
By DR. RUDOLPH MATAS
Composition cover sixty cents, leather eighty-five.
Send your order to
THE MISSISSIPPI DOCTOR
Booneville, Miss.

GREETINGS

to the

Doctors of the Mid-South Post-Graduate Medical Assembly

from the

Physicians' Business Bureau

the oldest and most successful organization in the country, owned and operated by Doctors, collecting Doctor's accounts.

PHYSICIANS' BUSINESS BUREAU,
Incorporated
520 Goodwyn Institute Building
MEMPHIS, TENNESSEE

When You Call On

MERCERE'S

YOU ARE GOING TO GET WHAT YOU WANT

A small item of supply needed in a hurry . . special office or hospital equipment to meet an emergency . . an Oxygen Tent to save a patient's life . . when you call on MERCERE'S in person, by phone, wire or letter, you have called on a Surgical Supply House that knows how to "come through" with what you want when you want it.

See Raymond at Booth No. 1 for Key during Mid-South Convention

MERCERE'S
E. L. MERCERE, Incorporated
191 MADISON AVE. — MEMPHIS

". . . and for restful comfort choose the traditionally perfect service of

HOTEL GAYOSO"

C. C. Cartwright, Vice President and General Manager

MEMPHIS, TENN.

FAMOUS FOR YEARS

The Arms of Governor Gayoso

•

For an appetite treat at a sensible price visit HOTEL GAYOSO *Lobby Coffee Shop.*

•

LOW PRICED LUXURY

Single Rooms $2.00 up

350 ROOMS

Double Rooms $3.00 up

FREE PARKING IN GARAGE

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor

Telephone: 6586 221 North Farrish St.

Jackson, Mississippi

DUCKWORTH DRUG COMPANY

Booneville, Mississippi

Distributors of:

Luminal of Sodium

Tablets and Powder

Novocaine Ampoules

Atabrine

Elixir of Pryamidon

Theominal Tablets

WINTHROP CHEMCAL COMPANY

New York City

ANNOUNCING THE SECOND ANNUAL

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

March 7, 8, 9, 10, 1938

• • •

Eighteen Physicians of National Reputation offer
The Important Advances of Medicine and Surgery

• • •

Four days of Inspiring Associations — Clinical Demonstrations — Round Table Discussions
Lectures — Symposia

• • •

SPEAKERS

ALLERGY: Dr. Warren T. Vaughan, Richmond, Va.

DERMATOLOGY: Dr. Udo J. Wile, Professor of Dermatology and Syphilology, University of Michigan Medical School, Ann Arbor

ENDOCRINOLOGY: Dr. Charles Mazer, Associate Professor of Gynecology, Graduate School of Medicine, University of Pennsylvania

GASTRO-ENTEROLOGY: Dr. Burrill B. Crohn, New York City

GYNECOLOGY: Dr. Norman F. Miller, Professor of Obstetrics and Gynecology, University of Michigan Medical School, Ann Arbor

MEDICINE: Dr. Richard P. Strong, Professor of Tropical Medicine, Harvard University Medical School, Boston

Dr. Sydney R. Miller, Associate Professor of Medicine, University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore

NEUROLOGY: Dr. Temple S. Fay, Professor of Neurology and Neurosurgery, Temple University School of Medicine, Philadelphia

OBSTETRICS: Dr. W. C. Danforth, Associate Professor of Obstetrics and Gynecology, Northwestern University Medical School, Chicago

OPHTHALMOLOGY: Dr. Algernon B. Reese, New York City

ORTHOPEDICS: Dr. Philip D. Wilson, Clinical Professor of Orthopedic Surgery, Columbia University College of Physicians and Surgeons, New York City

OTOLARYNGOLOGY: Dr. Frank R. Spencer, Associate Professor of Otolaryngology, University of Colorado School of Medicine, Denver

PATHOLOGY: Dr. Fred W. Stewart, New York City

PEDIATRICS: Dr. A. Graeme Mitchell, Professor of Pediatrics, University of Cincinnati College of Medicine

RADIOLOGY: Dr. Frederick M. Hodges, Professor of Clinical Radiology, Medical College of Virginia, Richmond

SURGERY: Dr. Arthur E. Hertzler, Professor of Surgery, University of Kansas School of Medicine, Halstead

Dr. Harvey B. Stone, Associate Professor of Surgery, Johns Hopkins University, School of Medicine, Baltimore.

UROLOGY: Dr. William E. Lower, Cleveland, Ohio

JEFFERSON STANDARD LIFE INSURANCE CO.

The largest regular ordinary Life Insurance Company South of the Mason-Dixon Line.

Policy contracts especially adapted to members of the medical profession.

Trained life underwriters to advise and assist in securing your needs.

J. L. DENSON, District Manager
523-25 Lampton Building
Jackson, Miss.

JEFFERSON STANDARD LIFE INSURANCE CO.
JULIAN PRICE, President
Greensboro, N. C.

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate

Drink
Coca-Cola
TRADE MARK REG. U.S. PAT. OFF.
Delicious and Refreshing

Pure refreshment

PRINTING PLATE
SPECIALISTS

MISSISSIPPI ENGRAVING CO.
Jackson Miss.

THE WALLACE SANITARIUM

MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

---

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most Modern Business School

A. S. McCLENDON, President

PRESENTING — Baxter Blood Transfusion Set

ADVANTAGES

A completely equipped apparatus for taking and dispensing blood by the indirect method. It is a closed system — eliminating the need for transfering blood from one container to another for infusion. When surplus blood is accrued from one donor, the excess blood may be safely and conveniently stored in the refrigerator for several days, and used later as need occurs. The Baxter Vacoliter again shows its versatility in this new, important role.

McKESSON & ROBBINS, Inc.
Doster-Northing Division
Birmingham, Ala.

WELCH'S SANITARIUM --- Jackson, Miss., Inc.

ALCOHOLISM, DRUG HABITS, MILD NERVOUS DISORDERS treated. Special attention to limited number of problem children. Answering a keenly felt need in Mississippi, this modern sanitarium is under personal direction of Dr. R. R. Welch, former Supt., East Mississippi State Hospital and prior to that, Ass't. Supt., Miss. State Hospital, assisted by complete, highly trained staff. Excellent meals. Quiet, restful; beautiful surroundings; all outside rooms, private baths Inspection by the medical profession invited. Reasonable rates; write or telephone.

WELCH'S SANITARIUM, Inc., JACKSON, MISSISSIPPI

ADMINISTRATION BUILDING

BLUE MOUNTAIN COLLEGE

Blue Mountain, Mississippi

FULL MEMBER OF SOUTHERN ASSOCIATION OF COLLEGES

Write for catalogue and new booklet on campus views.

LAWRENCE T. LOWREY, PRESIDENT

Main Building

FENWICK SANITARIUM

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association — medical staff specially trained — clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds — homelike environments — located in the healthy and beautiful town of Covington, Louisiana — a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

THE N.Y. ACADEMY OF MEDICINE
NOV 25 '38
LIBRARY

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, MARCH, 1938 NO. 10.

Do not drive faster than your eyes can accommodate.
If you drink, don't drive; if you drive, don't drink.
Wet roads may be slippery, wet drivers always.
Selfish driving and fast driving will sooner or later make their collection.
Good brakes, good casings, and moderate driving are elements in good road citizenship.
Practice preventive surgery by helping to prevent thousands of injuries on the highways.

In the past a frequent complaint from mothers was the expense incurred when the large bottle of antiricketic was accidentally upset.

"Busy fingers" can't spill

OLEUM PERCOMORPHUM

Even if the bottle of Oleum Percomorphum is accidentally tipped over, there is no loss of precious oil nor damage to clothing and furnishings. The unique Mead's Vacap-Dropper* is a tight seal which remains attached to the bottle, even while the antiricketic is being measured out. Mead's Vacap-Dropper offers these extra advantages also, at no increase in price:

Unbreakable

Mead's Vacap-Dropper will not break even when bottle is tipped over or dropped. No glass dropper to become rough or serrated.

No "messiness"

Mead's Vacap-Dropper protects against dust and rancidity. (Rancidity reduces vitamin potency.) Surface of oil need never be exposed to light and dust. This dropper cannot roll about and collect bacteria.

Accurate

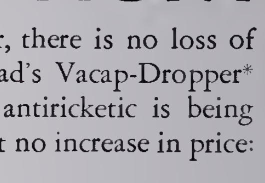
This unique device, after the patient becomes accustomed to using it, delivers drops of uniform size.

No deterioration

Made of bakelite, Mead's Vacap-Dropper is impervious to oil. No chance of oil rising into rubber bulb, as with ordinary droppers, and deteriorating both oil and rubber. No glass or bulb to become separated while in use.

How to Use MEAD'S *Vacap-Dropper*

Remove both top and side caps. Wipe dropper tip. Regulate rate of flow by using finger to control entrance of air through top opening (see below). Oleum Percomorphum is best measured into the child's tomato juice. This is just as convenient and much safer than dropping the oil directly into the baby's mouth, a practice which may provoke a coughing spasm.



U. S. Pat. Nos. 2105023 and 101575

**Supplied only on the 50 c.c. size; the 10 c.c. size is still supplied with the ordinary type of dropper.*

OLEUM PERCOMORPHUM
More Economical Now Than Ever

MEAD JOHNSON & CO., Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in *The Saturday Evening Post* and other leading magazines.

SELF-PORTRAIT

OF MANY BUSINESS MEN

MANY a business man pictures himself as a sort of modern Atlas—supporting the fate of the world on his shoulders.

He sincerely regards his work as indispensable to the success of the business, and recoils from anything that he feels might take him away from his job.

That's why it usually is so difficult to get such a man to pay proper attention to his health, even though he is troubled by persistent signs and warnings that something is wrong.

For at any suggestion that he heed these warnings—that he see his doctor—he says: "Yes, yes, I suppose you're right. But what if the doctor should order me to stop work for awhile? Who'd take care of my job? What would happen to the business?"

And the irony of it is that by his attitude he is inviting the very thing he fears! For one of the surest ways of encouraging a *serious* sickness is to neglect a seemingly *small* one. Heart and other organic diseases, stomach ulcers, and nervous disorders—diseases to which men in the so-called "prime of life" are particularly susceptible—thrive on neglect.

When you see your doctor he may, to be sure, prescribe a short rest. But isn't that better than a *forced long* rest later? He might say: "Take things a little easy. Leave the office an hour earlier at night." But isn't that better than driving on relentlessly until you're *carried* out of the office?

Let us hope, of course, that your disturbance will turn out to be a minor one—and that its treatment will be simple, its correction rapid. But whatever is wrong, you'll be better off if you start correcting it before it becomes really serious. The most sensible thing you can do, therefore, is to see your doctor *now*.

PARKE, DAVIS & COMPANY *Detroit, Michigan*
The World's Largest Makers of
Pharmaceutical and Biological Products

Copyright, 1938 Parke, Davis & Co.

SEE YOUR DOCTOR

THE DAY YOU FIRST INSPECT IT...

or after you've used it a year

The Pandex will impress you by its extraordinary flexibility, its many novel and eminently practical features, its utter dependability. Like the famed two-tube two hundred milliampere Fluoradex, the new single-tube sixty milli Pandex meets a definite demand. In the small hospital, where the scope of diagnostic x-ray work is limited, it serves adequately for every purpose. It is an excellent auxiliary unit to relieve major equipment for its specialized functions in the large institution.

The brilliant new Westinghouse Pandex is fully described in Bulletin No. 371. Your copy is waiting for you.

**WESTINGHOUSE
X·RAY CO·INC·
LONG ISLAND CITY·N·Y·**

THE DICK X-RAY COMPANY
MEDICAL ARTS BUILDING MEMPHIS, TENN.

THERE CAN BE NO COMPROMISE WITH QUALITY

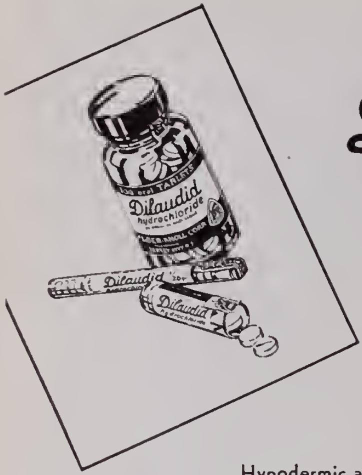
- Knowing how to make good pharmaceutical products for more than eighty years does not in itself supply the answer to the question WHY Poythress has up-held the confidence of physicians.

- The answer lies deeper — in the quality of the products themselves. Exceptional purity of ingredients make results more predictable.

- Quality is the cornerstone of which confidence is built.

WILLIAM P. POYTHRESS & COMPANY
INCORPORATED
RICHMOND, VIRGINIA

Manufacturers of Fine Pharmaceutical Specialties



COUNCIL ACCEPTED

Dilaudid hydrochloride

(dihydromorphinone hydrochloride)

For the relief of pain, Dilaudid hydrochloride has several advantages over morphine. It is a stronger analgesic, acts more quickly, and is less likely to cause undesirable symptoms.

Hypodermic and oral tablets,
rectal suppositories,
ampules, and powder.

DOSE: Dilaudid hydrochloride 1/20 grain will usually take the place of 1/4 grain morphine sulphate.

- Dilaudid hydrochloride comes within the scope of the Federal narcotic regulations.

Dilaudid Trade Mark reg. U. S. Pat. Off.

KNOLL BILHUBER

BILHUBER-KNOLL CORP. 154 OGDEN AVE., JERSEY CITY, N.J.

BAPTIST HOSPITAL Jackson, Miss.

WELCH'S SANITARIUM --- Jackson, Miss., Inc.

ALCOHOLISM, DRUG HABITS, MILD NERVOUS DISORDERS treated. Special attention to limited number of problem children. Answering a keenly felt need in Mississippi, this modern sanitarium is under personal direction of Dr. R. R. Welch, former Supt., East Mississippi State Hospital and prior to that, Ass't. Supt., Miss. State Hospital, assisted by complete, highly trained staff. Excellent meals. Quiet, restful; beautiful surroundings; all outside rooms, private baths Inspection by the medical profession invited. Reasonable rates; write or telephone.

WELCH'S SANITARIUM, Inc., JACKSON, MISSISSIPPI

"... and for restful comfort choose the traditionally perfect service of

HOTEL GAYOSO"

C. C. Cartwright, Vice President and General Manager

MEMPHIS, TENN.

FAMOUS FOR YEARS

The Arms of Governor Gayoso

•

For an appetite treat at a sensible price visit HOTEL GAYOSO *Lobby Coffee Shop.*

•

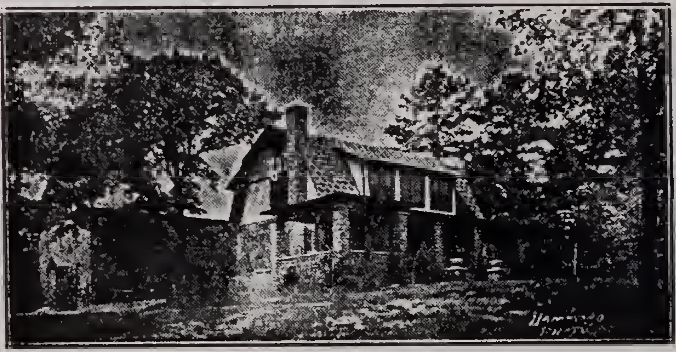
LOW PRICED LUXURY

Single Rooms	350 ROOMS	Double Rooms
\$2.00 up		\$3.00 up

FREE PARKING IN GARAGE

HOYE'S SANITARIUM

"IN THE MOUNTAINS OF MERIDIAN"
Meridian. Mississippi

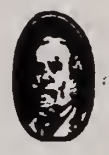


SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital



Robert E. Lee Hotel

"The High Spot of Southern Hospitality"

Jackson, Miss.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

STEWART GAMMILL, Manager STEWART GAMMILL, Jr., Asst. Mgr.

MISSISSIPPI'S . . . only and most conveniently located Physician's and Surgeon's Supply House

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St.
Phone 1444
JACKSON, MISS.

Let's Grow With Mississippi

Your Every Need Quickly Answered

- Surgical Instruments
- Physio-Therapy
- Belts and Trusses
- Rubber Goods
- Wheel Chair Rentals
- Hospital Furniture

Etc.

The Friendly Store of Dependable Service

As Close As Your Telephone

THE WALLACE SANITARIUM

MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most
Modern Business School

A. S. McCLENDON, President

The spotlight is focused on

PNEUMONIA CONTROL

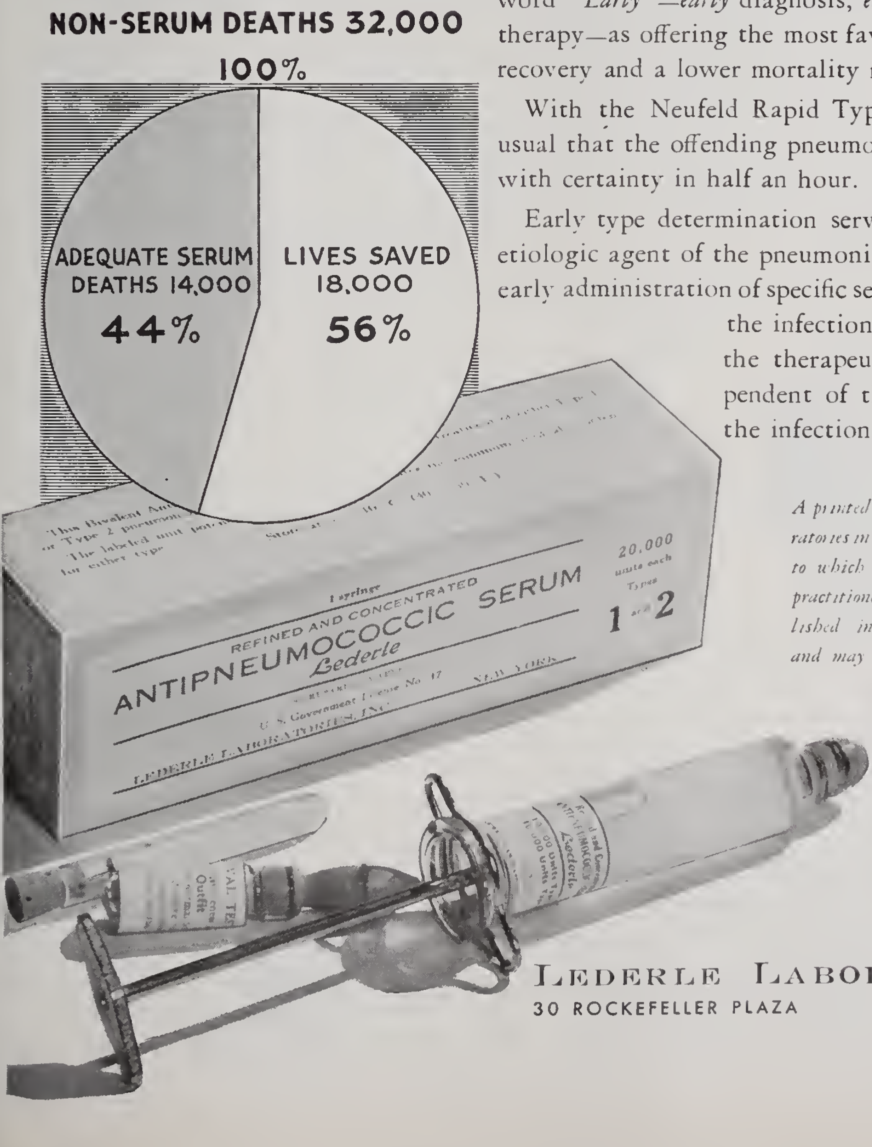
THIS YEAR, AS NEVER BEFORE, the various aspects of pneumonia control have been forced upon the attention of the public through a far-reaching publicity campaign in which public health publications, newspapers, magazines and motion picture films have participated.

This year, as never before, the medical profession and the public are pneumonia-minded, type-minded and specific serum-minded.

Particular emphasis has rightly been laid on the watchword "*Early*"—*early* diagnosis, *early* typing and *early* serum therapy—as offering the most favorable formula for an *early* recovery and a lower mortality rate.

With the Neufeld Rapid Typing reaction it is not unusual that the offending pneumococcus type is determined with certainty in half an hour.

Early type determination serves to identify the specific etiologic agent of the pneumonia. This makes possible the early administration of specific serum, regardless of whether the infection is bronchial or lobar, for the therapeutic effect of serum is independent of the anatomical location of the infection.



A printed list of more than 2,000 laboratories in the United States and Canada to which sputum may be referred by practitioners for typing has been published in directory form by Lederle and may be obtained free on request.

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA NEW YORK, N. Y.

THE TURNER-GOTTEN SANATORIUM
MEMPHIS, TENNESSEE, Route 6, Box 288

For the Diagnosis and Treatment of Mental and Nervous Disorders

Located on the Raleigh - La Grange Road, five miles east of the city limits. Accessible to U. S. 70 (the Bristol Highway). 53½ acres of wooded land and rolling fields. Equipment new and modern, including the latest equipment for physical and hydro-therapy. Special emphasis is laid upon occupational and physical therapy under the supervision of a trained attendant.

An adequate nursing personnel gives individual attention to each patient.

C. C. TURNER, B.S., M.D.
Neuro-Psychiatrist

NICHOLAS GOTTEN, M.D., F.A.C.S.
Neuro-Surgeon

Advancing Years of Happiness

Advancing years of happiness — that's what it means to live with the conveniences and comforts of modern electric home service. For with every passing year new, thrilling aids to Better Living find their way into Mississippi homes. As a basic Mississippi Industry employing more than a thousand Mississippians, this company takes pride in its service — helping housewives to happiness in over 305 cities, towns and communities of the state.

MISSISSIPPI POWER & LIGHT CO.

IN THIS ISSUE

SOME OF THE COMMON COMPLICATIONS OF PREGNANCY AND LABOR
E. L. King, M.D. 1

FURTHER REPORTS ON GRAFTING OF ENDOCRINE GLANDS
Harvey B. Stone, M.D.,
James C. Owings, M.D.,
George O. Gey, M.D. 6

UTERINE HEMORRHAGE
Irvin Abell, M.D. 10

THYROID DISEASE
L. C. Sanders, M.D. 15

EDITORIALS 19

DR. AND MRS. GANT HONORED ON GOLDEN ANNIVERSARY DAY 21

DR. OTIS S. WARR 22

NOTES AND OBSERVATIONS ON HEALTH SUBJECTS MADE IN SOUTH AFRICA IN 1937
W. A. Evans, M.D. 23

DR. R. J. BROWN 27

PROGRAM FOR THE NORTHEAST MISSISSIPPI THIRTEEN-COUNTY MEDICAL SOCIETY 27

TO ADDRESS NEW ORLEANS PARISH MEDICAL SOCIETY 27

POST-GRADUATE MEDICAL EDUCATION
H. W. Kostmayer, M.D. 28

THE DIAGNOSIS, DIETARY MANAGEMENT AND MEDICAL TREATMENT OF GASTRIC AND DUODENAL ULCERS BY GENERAL PRACTITIONERS
Seale Harris, M.D., and
Seale Harris, Jr., M.D. 32

LOOKING TO A GREATER PUBLIC HEALTH PROGRAM
Felix J. Underwood, M.D. 42

MISSISSIPPI NEWS 44

WOMAN'S AUXILIARY 70

WITH OUR ADVERTISERS

American Surgical Supply Co. vii
Baptist Hospital, Jackson, Miss. iv
Bilhuber-Knoll Corp. iv
Courtesy Cards .... xiii, xiv, xv, xvi
Eli Lilly and Company xii
H. A. Phillips Artificial Limb Company xviii
Hotel Gayoso v
Hoye's Sanitarium vi
Lederle Laboratories, Inc. ix
Lynnhurst Sanitarium xviii
McKesson & Robbins, Inc. xvii
Mercere's xviii
Mississippi Engraving Co. xvii
Mississippi Power and Light Co. x
Parke, Davis & Company i
Robert E. Lee Hotel vi
The Dick X-Ray Company ii
The Doak Co. 70
The Draughon School of Commerce viii
The Wallace Sanitarium viii
Turner-Gotten Sanatorium x
Welch's Sanitarium, Inc. v
William P. Poythress & Company iii

THE CRUCIAL TEST—Laboratory tests are not always decisive. Clinical trial is essential really to prove the merit of new drugs. The Lilly trade-mark on pharmaceuticals and biologicals is assurance of conscientious testing both in the clinic and in the laboratory.

THE LILLY RESEARCH LABORATORIES

'Lextron' (Liver-Stomach Concentrate with Iron and Vitamin B Complex, Lilly) is effective in all anemias which can be successfully treated with liver extract, or with iron. The factors necessary for erythrocyte formation and hemoglobin regeneration are liberally supplied by this preparation. 'Lextron' is packaged in bottles of 84 and 500 pulvules (filled capsules).

ELI LILLY AND COMPANY

INDIANAPOLIS, INDIANA, U. S. A.

Some of the Common Complications of Pregnancy and Labor*

E. L. KING, A.B., M.D.
Professor of Obstetrics, College of Medicine,
Tulane University of Louisiana
NEW ORLEANS, LA.

IT IS hard to decide which of the various obstetrical complications are the ones which would prove most interesting to this group, hence I have chosen those which have given me the most concern, and I shall try to outline the essential points of each, and shall pay particular attention to the treatment of these various conditions. Our maternal and fetal mortality and morbidity rates are higher than they should be; however, much improvement is being made because of the intensive drive for better obstetrical care throughout the country. Only by constant effort along this line can the desired results be obtained, and we must look to those who are practising obstetrics for the reduction of morbidity and mortality rates by the application of correct methods of diagnosis and treatment. It goes without saying that proper prenatal care is the first objective, and in some way this must be provided for pregnant women.

Let us first consider the vomiting of pregnancy. This may be mild (or physiologic), moderately severe, or very severe (commonly called pernicious.) Classified according to etiology, we usually speak of reflex, neurotic and toxemic types. Personally, I do not feel that many cases fall into the reflex group. There may be some patients in whom reflex irritation may be a factor, but I believe that, as a rule, the associated local lesion that we discover is incidental and not causative. Nor do I feel that the purely neurotic group is very large, in spite of the view held by Williams and his disciples that a large percentage of the cases fall in this category. Hence, I am of the opinion that most of the patients afflicted with the nausea and vomiting of early pregnancy are suffering from a toxemia; often complicated, it is true, with a neurosis, rarely aggravated by a reflex from a local pathologic lesion. We are ignorant regarding the nature or the source of the toxemia, but all are agreed that such exists. We differ only as regards our opinions as to the relative frequency and importance of the various types.

The question is, from a practical point of view, how shall we treat this condition? The mild cases (or physiologic) require little attention. A light breakfast an hour or so before arising will often be retained. Five or six small meals, chiefly of carbohydrates, may be preferable to two or three "regular" meals. A sedative (such as sodium luminal, ½ to 1½ grains, or some other barbiturate, or sodium bromide, 15 grains), taken an hour before eating, may be of great assistance. The elimination of focal infections (teeth, tonsils, etc.) may help considerably. Pyelitis may, at times, be a factor. Rest is of value, especially at the times the patient is usually nauseated. Proper bowel function should not be forgotten. In the moderately severe group, bed rest is the first essential. An occasional gastric lavage may aid by removing the sticky, bile-laden mucus so often found. Sedatives may be employed in larger doses, say sodium luminal 2 or 3 grains by hypo 2 or 3 times per day, or 30 grains of sodium or potassium bromide every 4 or 5 hours by rectum. Some have reported good results from corpus luteum extract by hypodermic, but its value is questionable. The same is true as regards adrenalin. Extract of adrenal cortex seems to be of value, according to recent reports. Theelin is favored by some. Other endocrines do not appear to be of any assistance. Diet is along the lines mentioned above. If little or no food is retained, we should resort rather promptly to the intravenous administration of glucose.

---

*Read at the meeting of the Mid-South Post-Graduate Medical Assembly, Memphis, Tenn., Feb. 15, 1938

I personally prefer to give 750 to 1000 c.c. of a 10% solution twice a day; Titus, however, feels that such a patient can not utilize more than 75 grams of glucose in any one infusion. The fluid should be given slowly, taking at least 1½ hours for each infusion. If vomiting has been prolonged or excessive, sodium chloride should be added to the infusion in such amount as to make a .75 to 1% saline solution. The hypodermic administration of insulin, in the proportion of one unit for each 3 grams of glucose, given in 3 doses during the infusion, is often of distinct value. Occasionally, the introduction of a duodenal tube and the feeding of liquids through this tube will be of great benefit. For the severe cases, very much the same routine is employed, probably with some increase in the sedatives, and nothing is given by mouth. I have found the continuous intravenous drip of Professor Matas to be a life-saver in some instances. Proctoclysis is of little value. Hypodermoclysis may be used occasionally (of normal saline solution); often it is felt that transfusions may help. If, after 4 to 6 days of intensive treatment, the patient does not improve, therapeutic abortion is indicated, especially if there be fever, a rapid pulse, jaundice (even slight) or even a suspicion of peripheral neuritis.

Let us next consider pyelitis, which may complicate pregnancy, generally in the 4th or 5th month, or may not develop until the puerperium. It is more frequently found than some realize, and is one of the common causes of fever in the pregnant or parturient woman. Dilatation of the ureters and kidney pelves is found in the majority of pregnant women, and the addition of bacteria to the stasis already present is all that is necessary to establish a pyelitis. The kidney parenchyma is frequently involved to a greater or less extent. The chief symptom is fever (high or low), with or without chills. There may be pain in the back, with frequent and painful urination, but these manifestations are not constant, The diagnosis is settled by the finding of pus, or bacteria, or both, in the catheterized urine. Of course, malaria and other conditions are ruled out by appropriate studies. The treatment consists of rest in bed, plenty of fluids, a light diet, and the use of the knee chest position (if possible) two or three times per day. Urotropin with acid may be of value; at times, alkalis seem to be better. The mandelic acid preparations are much more useful; they must be given with a limited fluid intake, and with a fair amount of meat in the diet. These preparations have supplanted the rather disagreeable ketogenic diet. In case these measures fail, or if the symptoms (high fever, chills, etc.,) are severe when the patient is first seen, cystoscopy and ureteral catheterization should be done. Properly performed, this should not be feared as a possible cause of abortion. Some urologists prefer to irrigate the pelves and withdraw the catheters, others prefer to leave them in situ. Personally, I feel that this should be done in the intractable cases, but not in the milder ones. In rare instances, when careful and intensive treatment fails, therapeutic abortion must be performed. I have known of one or two maternal deaths, due to the postponement of the abortion until it was too late. In the puerperium, pyelitis should always be looked for when fever develops. The treatment at this time is essentially the same as during pregnancy.

Syphilis.—In view of the intensive drive being conducted against this disease, it is proper that it be considered in this discussion. It is found in 18 to 25% of pregnant colored women, in 1½ to 3% of white women attending our free clinics, and in somewhat less than 1% of private patients. It is the cause of more intrauterine fetal deaths in the last third of pregnancy than any other one disease. A recent estimate claimed that it takes 9000 fetal lives per year in one of our northern states. In the woman, the first stage may be unrecognized, as the lesion is high up in the vagina or on the cervix, and the second stage may be mild or unnoticed. Hence the diagnosis rests chiefly on the Wassermann reaction or a modification thereof, and this test should be routine in pregnancy. If syphilis is found, treatment should be started at once. We cannot hope to cure the mother in a few months, but we can often prevent fetal death.

Abortion.—This subject is one meriting considerable attention, but we can only touch upon the salient points. It has been estimated that one out of every 3 or 4 pregnancies terminates in abortion, of which a large number are criminally induced. The other etiologic factors are legion, and in many cases it is impossible to find the cause. Locally, lesions such as fibroids of the uterus or endometritis may at times be incriminated. A diseased cervix, a retrodisplaced uterus, or an ovarian cyst will rarely be a factor in the causation of abortion. Trauma will at times be blamed, but it is seldom the sole or chief reason for the occurrence. In a great many instances the embryo has not developed properly, and the abortion is really a conservative process. General diseases, especially the chronic conditions, may be responsible. Endocrine deficiencies seem to play a rather important part; this is particularly true as regards hypothyroidism, which I believe is often responsible for intrauterine fetal death. An abortion may be threatened or inevitable, complete or incomplete, clean or infected, or missed. The diagnosis of the type is at times difficult. An abortion is threatened if there is slight bleeding, with or without pain, slight or no effacement of the cervix, and no dilatation of the external os. If the bleeding is profuse, if the cervix is open, and especially if the membranes are ruptured, the abortion is inevitable. In the first instance the treatment consists of rest in bed, an opiate every 4 to 6 hours for 24 to 48 hours (codeine and paregoric are not powerful enough), and the hypodermic administration of progestin in oil, one rabbit unit per day for 2 to 4 days. If the abortion is inevitable, and the cervix admits two fingers, the uterus may be cleaned out digitally. If the cervix does not permit this, a snug cervicovaginal pack should be inserted for 24 hours. At the end of this time we frequently find the products of pregnancy lying in the vagina; if not, the cervix is usually dilated to some extent, so that we can gently evacuate the uterine contents with the finger or the sponge forceps. Incomplete abortion is diagnosed when the fetus is expelled, and part or all of the placenta is retained. It is important that the patient save all soiled pads, clothing, sheets, etc., until the physician arrives, as a careful inspection will often disclose the fetus in the discharged blood clots. If the fetus is passed in the toilet, or is thrown away with the clots, it is generally impossible to decide whether the abortion is threatened or incomplete, unless the cervix is sufficiently dilated to permit exploration. Bear in mind the fact that a small fetus can be extruded through a cervix that is only slightly dilated. In case of doubt, it is best to treat the case as one of threatened abortion. Once the diagnosis is established, the uterus should be emptied. This can at times be accomplished by the administration of several ½ c.c. doses of pituitary extract; at times by the use of a pack if the retained placental mass is large (say at 3½ to 4 months). In most cases, it is best to evacuate the contents with the finger or sponge forceps (never the curette) under anesthesia. If the abortion is infected (generally criminal) it is usually considered best not to interfere until the temperature has been normal for 3 to 5 days, unless the cervix is open and the contents readily accessible, or our hand is forced by the occurrence of free bleeding. We should be especially careful if the infection has spread beyond the confines of the uterus.

Toxemias.—We shall next consider the toxemias of late pregnancy. There are many different classifications; I personally prefer that of Stander, as follows: (1) chronic nephritis complicating pregnancy, (2) low reserve kidney, (3) pre-eclampsia, (4) eclampsia. These terms define themselves, except possibly that of low reserve kidney. By this is meant a condition in which the kidneys are adequate for the ordinary demands of the body, but are not quite equal to the task of caring for the extra metabolic load of pregnancy. There is a moderate elevation of blood pressure, say 140 to 150 systolic, and a little albumen in the urine. In practice, it is not always easy to differentiate between the first three groups, and it is not absolutely essential that we do so, as the treatment is practically the same. As a rule, the earlier the toxemia develops (say at the 5th or 6th month) the more likely it is to be nephritic. The blood non-protein nitrogen is frequently elevated in this condition, and the eyegrounds may show changes in the vessels, but these findings are not always present. The blood pressure is elevated in all these toxemias, and generally the seriousness of the condition is in direct ratio to the degree of the elevation. Albumen is usually present in the urine, but the amount is not necessarily proportionate to the gravity of the disease. As regards treatment, the essentials are (1) rest in bed, (2) elimination of salt from the diet, (3) balancing the fluid intake and output, (4) a light, easily assimilable diet (the proteins are not reduced to the degree formerly thought necessary), (5) free elimination by the bowels. It is not wise to force fluids, as this may overload the body; no more fluids should be administered than can be eliminated by the kidneys. Some feel that magnesium sulphate should be given intravenously to dehydrate the brain, using 20 c.c. of a 10% solution once or twice per day. It is well to administer a sedative, say a bromide or a barbiturate, as often as may be necessary to secure rest and sleep. If the condition does not improve, or tends to become more severe, the uterus should be emptied, unless the toxemia is a fairly mild one. The danger of eclamptic convulsions is always to be considered; besides this, it is well established that the longer a toxemia persists, the greater is the probability of the causation of permanent renal damage. In case we have to deal with eclampsia, the conservative management is generally held to be the best. By this we mean that the convulsions are controlled by drugs, emptying the uterus later (usually by induction of labor, rarely by caesarean section), in case labor does not supervene naturally, which frequently happens. Various methods of conservative treatment have been administered. Lazard and his coworkers give 20 c.c. of a 10% solution of magnesium sulphate intravenously every hour until the convulsions are controlled. Arnold and Fay use this method, plus repeated spinal drainage to relieve the intracranial pressure. Stroganoff uses morphin and chloral in large doses according to a definite schedule. At the Rotunda Hospital in Dublin emphasis is placed upon gastric lavage, starvation, and colonic irrigation, plus morphin. Schfarz, of St. Louis, advocates morphin, 25% magnesium sulphate intramuscularly, gastric lavage, and colonic irrigation. We have had gratifying results from morphin, sodium amytal (7½ grains intravenously, then 3 grains every 4 hours by mouth or by rectum), glucose intravenously (being careful not to give more fluid than can be eliminated), and induction of labor 12 to 20 hours after the convulsions are controlled.

Occipito-Posterior Positions.—The frequency of these positions has been variously estimated; as low as 15% by some, up to 60% or more by Potter and others. The difference is due to the fact that most of the heads rotate anteriorly spontaneously, giving us a small number that persist in the posterior position; i.e., the high estimates are based on the findings at or just before the beginning of the second stage. The diagnosis is based on the location of the fontanels or of an ear. Spontaneous anterior rotation is the rule, but in 10 to 15% of patients this does not occur. In such a case, some (e. g., Bill) prefer version and extraction, some advocate manual rotation, and others employ rotation with the forceps. We usually use forceps, according to the Scanzoni technic. In this method, the blades are applied so that the curve looks towards the baby's face. Rotation without traction is performed (at times lifting the head up to relieve the impaction), then the blades are reapplied as they now face in the wrong direction, and the baby is delivered (generally doing an episiotomy in primiparae).

Hemorrhage.—Bleeding before, or early in the onset of labor is usually due to placenta praevia or to premature separation of the placenta. In the former the uterus is of normal size and consistency, and the baby is generally alive. In the latter, we frequently find a hard, tense enlarged uterus, and the baby is often dead. The diagnosis is settled by vaginal examination; if the cervix admits one or two fingers, the placenta is felt if it is partly or completely covering the internal os; if it cannot be felt, the premature separation is the diagnosis. The x-ray, using 40 c.c. of 5-10 sodium in the bladder, is often ossis tona. The treatment is essentially the same; emptying of the uterus vaginally if the cervix is partially dilated, by the use of a pack, a Voorhies bag, or Braxton-Hicks version (never by manual dilatation); Caesarean section in most cases with the cervix closed or only slightly dilated, especially if the placenta praevia be of the complete variety, or if the premature separation be considerable and complicated by a hard, rigid uterus. Infusions and blood transfusions are to be employed freely, as indicated. In post-partum hemorrhage, the bleeding may be caused by (1) retained placental fragments, (2) lacerations (particularly of the cervix), or (3) atony of the uterus. In the first instance, the fragments are removed, in the second, the tears are found and sutured. In uterine atony, massage is tried, a hot intrauterine douche is administered, and pituitary extract or an ergot preparation (preferably one of ergonovine), or both, is given intramuscularly, or intravenously if the bleeding is profuse. If these measures fail, the uterus and vagina are tightly packed. At a last resort, the uterine arteries may be tied or clamped through the vagina; this may be done in desperate cases of placenta praevia or premature separation.

Puerperal Infection.—All post-partal fever should be considered as due to puerperal infection, unless we can discover another cause. The infection may be mild or severe, local or general. The gravest forms are due to the streptococcus, especially the hemolytic variety. The most frequent lesion is an endometritis; there may be metritis (even abscess of the uterine wall), parametritis, salpingo-oophoritis, abscesses in the broad ligaments or in Douglas' cul-de-sac, local or general peritonitis, thrombo-phlebitis of the pelvic veins, general septicemia, or metrastatic infections of distant organs. The symptoms and physical findings will aid in differentiating the various lesions. The treatment is chiefly supportive, surgery being limited to the draining of abscesses; very rarely, it may be necessary to remove a uterus which is the site of multiple abscesses. Plenty of nourishing, easily assimilable food, plenty of fluids, sleep, fresh air, and sunshine are essentials. Drugs are of little value. Sulfanilimide seems to be of distinct value in streptococcal infections, and Colebrook prefers prontosil to the other preparations. Repeated small blood transfusions, say 250 to 300 c.c. every 2 or 3 days, are of great value. Isolation is of course imperative, and the physician should be particularly watchful lest he transmit the infection to another patient.

The observations are of course sketchy and brief, but I trust they may be of some value. I have tried to present the essential features of the various conditions considered, and I hope that the suggestions regarding treatment may be of service to the members of the assembly.

* * *

Further Reports On Grafting of Endocrine Glands*

HARVEY B. STONE, M.D., JAMES C. OWINGS, M.D.
GEORGE O. GEY, M.D.

BALTIMORE, MD.

A FEW years ago the present authors published several papers dealing with efforts to transplant certain endocrine glands from one individual to another. This work described experiments on dogs and a number of human therapeutic attempts, giving the method that had been developed. The essential feature of this method was the cultivation of the tissue to be transplanted in vitro in an artificial medium containing serum and plasma from the host who was to receive the transplant later, the idea being to adapt the graft to the chemical environment in which it was to be placed. Other factors influencing the success of grafts were the choice of suitable locations for planting the grafts (our best results being obtained in the groin and axilla), the size of the grafted fragments, which should be a few millimeters in diameter, and the selection of young animals as the source of the grafts. As a result of our experience we were able to report a considerable measure of success in dogs with cross-grafting of thyroid and parathyroid tissue, and several apparent successes in human beings with parathyroid cross-grafts. The present paper brings up to date our clinical experience and describes further laboratory studies in this general field.

The latter phase of the work has concerned two chief objectives, the extension of the experiments to glands other than the thyroid and parathyroid, and the improvement of the details of technique. The adrenal cortex and the islands of Langerhans have been studied particularly. The obvious clinical importance of the latter makes it highly desirable to succeed in grafting this particular tissue. Great difficulty was found in culturing both these tissues, adrenal cortex because of its apparently great fragility and susceptibility to unfavorable environment, and Langerhans tissue because of its intimate association with the zymogenic or digestive cells of the pancreas. The latter digest the culture medium and other cells and destroy the tissue cultures in a short time. A great many expedients were tried to overcome this difficulty which will not be described in detail here, and which all failed until we resorted to embryonic tissue obtained at a period of development before the zymogenic cells had become activated. It is a well known fact that young tissues are better material for grafting than old but in this case the selection of this type of embryonic pancreas was based on the specific reason just given. With such tissue some successful tissue cultures were obtained and duly implanted after growth on medium made with the host animal's fluids. Naturally, we had great hopes of these experiments but regret to report that in none of them did we secure a viable graft, as proved by histological study, although a number of dogs, living on grafts alone, far exceeded the survival period of ordinary depancreatized dogs. For instance, one dog survived 41 days and another 107 days after the final removal of the last of the original pancreas. These dogs constantly ran high blood sugar rates and had marked glycosuria but at autopsy showed none of their own pancreatic tissue and must have survived on the grafts. The latter had about disappeared at the death of the animals.

There was no success in a number of experiments in grafting adrenal cortex in dogs. Much difficulty was experienced in getting adrenal cortex tissue free of medullary cells. A technique of several stages was evolved which removed the medulla but left the cortex of one adrenal at the first operation. By a second operation the cortical tissue on the opposite side was largely removed. It was found that after a time the surviving cortex on the first side would hypertrophy and be free of medulla. From this source fairly good cultures of cortical tissue could be grown but none of them survived grafting very long.

It seems clear from these experiments that because a certain technique may be successful with one type of endocrine gland grafting that one cannot therefore assume a similar success with other glands.

---

*Read at the meeting of the Mid-South Post-Graduate Medical Assembly, Memphis, Tenn., Feb. 16, 1938

A great deal of work has been directed at improvement of technique of the methods. Our first experiments involved a period of one month in artificial culture of the grafts before implanting them into the host animal. This period was selected without previous experience, and we have since modified it to determine the optimum culture period. Many experiments with different culture periods from two days to a month seem to indicate that two weeks is the optimum time with thyroid tissue, for this part of the experiment. Shorter periods of culture of the grafts gave fewer successful transplants, and longer periods were not notably more successful, at the same time having the disadvantage of prolonging the time of the experiment. We have, therefore, decided to adopt a two-weeks growth of the grafts in artificial culture as the routine procedure in clinical cases.

Another great difficulty that has beset us is the trouble in securing proper human material for clinical grafting. It should be remembered that there are a number of requirements that such material must meet. It must be sterile, hence the human subject from which tissue is obtained must be free from any infection, either general such as syphilis or septiceomia, or local infection of the region supplying the desired organ. It follows also that the removal of the material from the donor must be carried out with full aseptic technique. Again it is clear that the tissue must be viable, which means that the material from autopsy must be obtained within a short time after death. Adrenal cortex particularly goes to pieces very soon post mortem. The younger the person from whom tissue is obtained, the more apt is it to succeed as a graft, hence children, new-born infants or fetuses are the best sources. Yet in such subjects, tiny structures like the parathyroids may be very difficult or impossible to identify. This brings to attention another point, the need for grafting a sufficient amount of the gland concerned to make good the deficiency. We hoped at first that a successful graft would grow until it met the physiological needs of the patient. Our experience in human cases leads us to doubt this, and we are inclined to believe that it is necessary to provide by grafting an amount adequate to the patient's needs. Clearly, the mass of a graft for thyroid deficiency may be many times what could ever be required for hypoparathyroidism. A summation of the situation shows that so far as autopsy material for grafting is concerned, the following conditions must be met. The cause of death must not be of such a nature as to entail possible infection of tissue. Permission for removal must be obtained, arrangements for complete surgical technique set up, and securing of the tissue completed within a few hours after death. The subject must be as young as possible. It is clear that the sources of supply are greatly limited by these conditions. The only alternative is material removed in the operating room from living subjects, either by the voluntary offering of the donor or in the course of operations for the relief of some clinical condition. We have used one donor of parathyroid tissue—sister to sister—and, fortunately, this graft was completely successful. Tissue removed for clinical disorder is nearly always unsuitable, as the very fact that such tissue must be removed implies that it is diseased or in some way abnormal.

These difficulties have been set out at some length because they form at the present time the greatest obstacle to further clinical trial of gland grafting and, indeed, are responsible for the small experience we are able to record so far. There are waiting now a number of patients needing grafts of various kinds whom we are unable to treat for lack of proper tissue. Two possibilities suggest themselves. The first is the use of tissues from other species of animals. Our experiments, as from cat to dog, etc., have been quite unpromising and, indeed, the biological probabilities are cartainly against success in this direction. However, we intend to investigate this possibility further as development of a dependable method of heterologous or cross-species grafting from any of the commonly available animals to man would at once solve the problem of tissue supply. The second effort we are making toward provision of material for grafting is a search for a technique by which we can grow human tissue in bulk and thus preserve a stock supply in the laboratory. At present, the tissue in culture grows well enough, as a rule, but because of the rapid liquifaction of the medium, frequent transfers to new cultures have to be made. Each of these entails the loss of some of the material besides being very costly in time, effort and equipment. The particular point here, however, is that the loss of material by transfer about offsets the increment by growth, so that accumulation of tissue at present is almost negligible. To meet the problem, we are now engaged in a series of experiments by which we hope to evolve a technique that will permit continuous growth of our cultures without interruption by transfers, and thus after once starting a suitable strain of tissue culture of any given gland, insure a stock supply for indefinite use.

Interesting and fundamental as these matters are to us in the development of our undertaking, the results so far obtained in clinical cases will no doubt be of more general appeal. Our clinical experience may be stated briefly as follows:

Parathyroid Grafts in Human Cases. Sixteen patients have received grafts of human parathyroid tissue. Several of them have been grafted on more than one occasion because of failure of the first attempt, so that in all about twenty-three separate experiments have been carried out. Three of these were done with tissue from a parathyroid adenoma removed in a case of osteitis fibrosa cystica, two being complete failures and one showing improvement for six months. Five of the sixteen patients we have classed as well, or practically well, as determined by absence of symptoms with little or no need for medicine or other care, approach of the blood chemistry to normal and ability to carry on the activities of daily life. One other case seemed practically well for two years and then relapsed into tetany. Six were considered definitely or markedly improved, the symptoms being greatly reduced in intensity with need for smaller and less frequent doses of medication and demonstrable improvement in blood chemistry. Five more patients, including the case of adenoma graft that showed temporary benefit, are considered unimproved. The first case grafted was done nearly six years ago and she is still well, with very slight symptoms and able to support herself and her child by working. She is taking no treatment, and most of the time her blood chemistry approaches normal. Another of the "well" cases is in the sixth year. Others have gone from one to three years with no signs of relapse. The fact that one relapse occurred after two years of apparent cure makes it necessary to be reserved in concluding that these cases are permanently cured.

Thyroid Grafts. Nine patients have received grafts of thyroid tissue. It may be said that they were all failures and that only one of them was clinically a good case for such experiment. He was a young man with hypothyroidism following thyroidectomy but was temperamentally difficult and uncooperative. Two others were cases of spontaneous myxedema in adults, one of whom definitely showed hypophyseal disorders as well. The rest were defective infants or young children classed generally as cretins but probably suffering with polyglandular deficiencies.

Adrenal Cases. Two patients with a diagnosis of adrenal insufficiency have been grafted. Both showed definite improvement. One of these died nine months later of acute pneumonia, probably tuberculosis as he had marked pulmonary tuberculosis. Before his brief final illness he gained weight, his blood pressure rose and his strength and well-being increased notably. The second patient was grafted two years ago. He also has gained weight, his blood pressure has gone up, his sexual libido has returned and he is able to do some work again.

Pancreas Case. One patient, who is a carefully observed and controlled diabetic, and most cooperative, has on two occasions received grafts of human embryo pancreas. No observable benefit has resulted. The amounts of tissue used were probably quite inadequate.

It will be seen that we have had a good deal of failure, some probable benefit, and a certain number of cases that it seems fair to consider clear-cut successes in our human grafting experiments. It is interesting to compare these human cases with our dog experiments. Our best human results were with parathyroid grafts, and with thyroid no encouraging clinical experience was obtained, yet in dogs our thyroid grafts were distinctly more successful than the parathyroids. There are possible explanations of this disappointment in human thyroid grafts which we will not enter into except to point out that few of our human cases were very suitable as experiments, and that the mass of tissue necessary for a fully functioning graft is probably much greater than we were able to use. On the other hand, our grafts of adrenal cortex in dogs were uniform and complete failures, but the two human cases in this group were distinctly encouraging. It would seem, therefore, impossible to conclude that success with one gland will imply success with a different gland in the same species, or with the same gland in a different species. In short, no generalization seems to be justified in this whole field. Each specific problem must be answered by specific investigations.

To summarize: Since our last publication, work has been carried on in a variety of directions. Additional endocrine glands have been investigated. Details of technique are being studied. There has been much disappointment but some success. The practical utility of the methods of endocrine gland grafting in human cases is not great at the present time and cannot become so until a way is found to insure a dependable supply of suitable tissue for grafting. We are attacking this problem at present, along with other less vital issues in this general field.

REFERENCES

Living Grafts of Endocrine Glands, Amer. Jour. of Surgery, 1934, Vol. XXIV, No. 2, 386-392.

Cross Grafting of Endocrine Tissues, Surg. Gyn. & Obst., Oct., 1934, Vol. LIX, 683-684.

Transplantation of Living Grafts of Thyroid & Parathyroid Glands, Annals of Surgery, Oct., 1934.

Living Grafts of Thyroid Glands, Surg. Gyn. & Obst., Feb., 1935, Vol 60, 390-393.

We are deeply indebted to Dr. J. Frank Hewitt, of Baltimore, for much valuable assistance in the experimental operating on animals.

Uterine Hemorrhage*

IRVIN ABELL, M.D.

LOUISVILLE, KY.

BLEEDING from the uterus, under certain conditions, represents a perfectly normal function, being the only instance in the body of physiological hemorrhage. The basis of our present day conception of menstruation, while surmised for quite some time, has come to rest upon substantial knowledge concerning the pituitary and ovarian hormones. Since dysfunction of these may play a part in uterine bleeding of any type, the first step in the discussion of pathological hemorrhage may well be a brief review of the related factors of the physiological process. The appearance of puberty signifies the advent of ovarian maturity with its coincident menstrual cycle. The motor mechanism and cyclic periodicity of menstruation are controlled by hormones of the anterior pituitary lobe, while the endometrial changes are governed by the ovarian hormones, estrin and progestin, the former produced both by the graafian follicle and the corpus luteum, the latter by the corpus luteum. The normal menstrual cycle is divided histologically into four phases. (Mazer and Goldstein, Clinical Endocrinology of the Female):

1. The resting stage, which follows the cessation of the previous period and occupies four to five days, during which the regeneration of the uterine mucosa is initiated. Simultaneously the corpus luteum of the preceding cycle continues to disintegrate while another primordial follicle begins its evolution into a graafian follicle. Its development depends on two factors: (a) the withdrawal of the inhibiting influence of the corpus luteum of the preceding period and (b) the stimulating effect of the anterior pituitary hormone.

2. The interval stage of about ten days shows a continued growth of the uterine mucosa under the stimulating influence of estrin, elaborated by the graafian follicle and its successor, the corpus luteum. The mucosa becomes differentiated into layers and shows proliferation of the tubular endometrial glands. The developing graafian follicle reaches maturity during the first half of this stage (twelve to fourteen days after the onset of the preceding menstrual flow). Rupture of the ripe follicle ensues and the ovum, with a large quantity of follicular fluid containing estrin, is liberated. The latter is absorbed and its utilization promotes uterine growth and vascularity: the ovum finds its way into the fallopian tube, where it awaits fertilization. Proliferation of the granulosa and theca lutein cells of the ruptured follicle jointly begin the formation of the corpus luteum. The luteal body primarily continues to produce estrin, but in addition elaborate another hormone, progestin, which has the dual role of inhibiting further follicular growth and of sensitizing the endometrium for nidation in anticipation of a fertilized ovum.

3. The Premenstrual State. The simultaneous and balanced action of the two hormones, estrin and progestin, produce further endometrial growth and turgescence. The endometrium becomes thicker, the glands tortuous and their epithelium wavy, the microscopical picture closely resembling a ten to fourteen day decidua.

4. The destructive stage, corresponding to menstruation, is characterized by disintegration of the hypertrophied mucosa down to the basal layer, from which reconstruction of the endometrium in the ensuing cycle takes place. This dismantling is preceded by, and is the direct result of, regressive changes in the corpus luteum and the sudden cessation of estrin production. From this lucid description of Mazer and Goldstein normal menstruation is seen to be the rhythmic discharge of blood and disintegrated structural elements of the previously sensitized endometrium, evoked by a failure of fertilization of the ovum. Bleeding from the uterus beyond that of the normal menstrual flow occurs in a wide variety

---

*Read before the Northeast Mississippi Thirteen-County Medical Society, Tupelo, Miss., December 17, 1937.

of pathological conditions, varying in amount, degree and time of occurrence, and in which functional, anatomical and constitutional factors, acting singly or in combination, are to be sought as the provocative causes. For purposes of clarity and brevity these will be considered under the following headings, constitutional dyscrasias, pelvic inflammations, functional bleeding, pregnancy and pregnancy sequels, displacements and lacerations and, finally, neoplasms.

Constitutional Disease. It is to be noted that excessive bleeding occurs at times in the acute infectious diseases, particularly typhoid fever, pneumonia, and influenza: in constitutional disorders, such as the anemias, purpura, syphilis, diabetes, scurvy and hemophilia: in the organic diseases, such as pulmonary tuberculosis, hypertension, cardiorenal and hepatic lesions: in chronic intoxications, such as alcohol, lead, phosphorus and malaria and finally in severe emotional disturbances, especially during the pubescent and menopausal periods, when a relative menstrual instability may exist. Appropriate treatment will consist in the correction or management of the underlying dyscrasia with the employment of rest, drugs, hormones or radiotherapy as may be needed for the immediate control of the excessive menstruation.

Pelvic Inflammatory Disease. The bleeding that appears with tuberculous and inflammatory disease of the pelvic organs is to be attributed to pelvic congestion, to hyperanemia and round celled infiltration of the endometrium and to the involvement of the ovary in the inflammatory process resulting in displacement, infection or degeneration of sufficient degree to interfere with its regulation of menstruation. The bleeding does not consistently run parallel in amount with the degree or extent of the inflammatory disease: when the latter is chronic, menstruation of normal amount and duration is often observed, while in instances where the disease is most acute, menstruation may be excessive, normal or even absent, furnishing added proof that physiologic factors in addition to the structural anatomic change play a causative part. Its treatment will be that of the pelvic inflammation, consisting of rest, ablation of the tubes, ovaries or uterus, one, part, or all of these measures to be employed, as the pathology of the case demands.

Functional Bleeding. The history of what we now know to be functional uterine bleeding is not without interest. The observation of patients presenting profuse menstruation, constant bleeding of varying degree, or frequent "flooding spells," in whom examination revealed no evidence of constitutional disorder other than secondary anemia, with little, if any, variation from the normal in size, mobility, contour and position of the uterus and negative appendages, has in the past offered the real problem of the bleeding uterus. Both menorrhagia and metrorrhagia may set in as well as be distinguishing characteristics of its close without the presence of any demonstrable gross lesion of the pelvic organs and while occurring at all ages between these periods is most commonly observed as the latter is approached. It has been designated as metropathic myopathic and idiopathic, each but a confession of ignorance of the causative factors involved in its production. Curettement at times was helpful but often proved disappointing in that the bleeding recurred. Not infrequently hysterectomy was done as a last resort for the control of the disabling symptoms. Microscopical examination showed two constant findings in the uterus and ovaries, namely, hyperplasia of the endometrium and follicular maturation with absence of corpora lutea in the ovaries. In the light of our present knowledge of the physiology of menstruation the significance of these findings are readily apparent, indicating a dysfunction in hormonal influence. An excessive estrin influence stimulates the endometrium to hyperplastic development and a lack of the inhibiting progestin influence presents its luteinization, resulting in an incomplete menstrual cycle and consequent bleeding. The cause of this dysfunction in the earlier years of sex life is pituitary or thyroid deficiency and its treatment consists in efforts to bring about a restoration of hormonal balance. Curettement is contraindicated both because it fails to reach the causative factor and in the very young it may exercise a depressing psychic effect. If the profuseness of the flow demands it, the bleeding can be temporarily controlled by a vaginal pack, and the blood loss, if excessive, can be replaced by transfusion. If the basal metabolic rate reveals a thyroid deficiency, the administration of desiccated thyroid with pituitrin or the anterior pituitary hormone will usually suffice to control the bleeding. In the pituitary deficiencies since there is a failure of luteinization, the theoretically ideal treatment would be the administration of progestin, which, so far, is not available. Lacking progestin as a therapeutic agent, there are three effective methods of treatment applicable to a restoration of hormonal balance: (a) the hypodermatic administration of the anterior pituitary lobe hormone daily until the bleeding ceases to be followed by a second course as the date for the ensuing period approaches: (b) stimulation of the ovarian and pituitary functions by irradiation, giving one twelfth to one tenth of an x-ray erythema dose over the ovarian and pituitary regions once a week for three consecutive weeks, and (c) the application of small doses of radium to the interior of the uterus, thereby lessening follicular maturation. While we have employed each and all of these methods, we have reached the conclusion that the employment of radium in the uterus of young women, on account of the inherent danger to ovarian function, should be reserved for those cases that prove intractable to other means of treatment. This objection does not hold true when the patients with functional bleeding are in the later years of sex life. The cause of hormonal dysfunction at this age does not lie in pituitary deficiency, but is to be attributed to a primary decline in ovarian function as a result of intrinsic structural changes in the ovaries. Such patients do not respond to hormonal therapy, but are almost invariably relieved by radium applied within the uterus. A preliminary curettement should always be done to the end that microscopical examination of the curetted particles may give assurance of the absence of malignancy. The sexual and reproductive age in such patients is nearing its normal termination and the hastening of its completion by the application of radium is rarely objectionable. A dosage of one thousand to two thousand milligram hours applied within the uterine cavity affords one of the most brilliant results to be obtained in the field of radium therapy.

PREGNANCY AND PREGNANCY SEQUELS

In occasional cases of intrauterine pregnancy abnormal bleeding persists until the entire decidual membrane is completely fused with the gestation sac. Such cases may terminate in abortion, others in death of the fetus and mole formation, and still others show cessation of bleeding and go on to full term. The treatment as long as the fetus lives demands absolute rest with the administration of sedatives, if the pelvic discomfort is sufficient to require them until the bleeding stops and shows no tendency to recur when the patient is allowed to be up and about. Theoretically, if progestin were available, the indications could be best met by its administration in bleeding of this type and in those patients showing repeated spontaneous abortions in the absence of constitutional and local disease. If the fetus dies, prompt evacuation of the pregnancy products should be carried out. In the event of hydatidiform mole formation, the emptying of the uterus should be done as early as is consistent with accurate diagnosis. The bleeding which occurs with abnormal implantation of the placenta, postpartum atony and obstetric injuries presents causes so obvious that they need but to be mentioned. A relatively infrequent abnormality noted with pregnancy and commonly associated with bleeding, chorio-epithelioma, develops at the placental site from the epithelial covering of the chorionic villi, either during pregnancy or after labor, and not infrequently following mole formation, the period of development, varying from two weeks to several years after termination of the pregnancy. Widely spread metastasis by way of the veins occurs early in its development, making it one of the most malignant of tumors. Early diagnosis by means of microscopical examination of curetted particles and panhysterectomy offer the best chance for cure. The uterine bleeding that occurs with ectopic gestation proceeds from exfoliation of unused decidua and represents a combination of anatomic and physiologic factors. As long as the fetus lives, it is usually of the "spotting" type, but may become quite free and persist for weeks or months after the death of the embryo. Its chief importance lies in directing attention to the causative factor, since it is rare that uterine bleeding in ectopic gestation is of sufficient extent to require measures directed to its stoppage, ceasing with the removal of the offending tube or the extrusion of the pregnancy by means of tubal abortion. The bleeding in incomplete abortion is due to the retention of pregnancy products and the effort on the part of the uterus to expel them. The frequency of spontaneous and induced miscarriages makes this type of bleeding one of the commonest with which the practitioner has to contend. The diagnosis usually can be made from the history and physical examination; this history lacking, a correct conclusion at times will not be reached until the uterus is explored. The more recent the abortion, the more gentle should be the evacuation, using blunt forceps or sponge holders armed with gauze and not the sharp curette.

Where weeks have elapsed following the abortion, the curette will be necessary to a completed freeing of the uterin surface. Subinvolution, if recognized before the permanent hypoplastic changes takes place in the myometrium, and if unassociated with prolapse and lacerations, calls for the institution of measures looking toward an improvement of the patient's general and local condition: at times curettement is required for the control of bleeding.

DISPLACEMENTS AND LACERATIONS

The bleeding in this group shows as a definite increase in the menstrual flow and as intermenstrual hemorrhage of varying degree. It is due to vascular engorgement dependent on the malposition, to erosions and inflammations of the torn cervix and to disturbance of ovarian function. Curettement with repair of the lacerations and rectification of the displacements will usually correct the bleeding, the exceptions being found in those cases presenting hormonal dysfunction and in those with long standing subinvolution. When the appropriate alteration of the anatomic defect fails to check abnormal bleeding, a continuation of hormonal dysfunction may be assumed and the measures for its correction selected according to the age of the patient, hormone therapy, stimulating Roentgen irradiation of ovaries and pituitary or intrauterine application of radium. In women in the later years of menstrual life, who present lacerations and displacements with a long standing, subinvolution hysterectomy is frequently the procedure of choice, since the difficulty or impossibility of affecting a reduction in the size of the uterus often prevents the attainment of freedom from annoying and distressing symptoms. The importance of repairing lacerations of the cervix and the necessity for so doing, when such lacerations are attended with uterine bleeding, is obvious, when one considers that approximately one-third of the cancers in women occur in the uterus and that ninety per cent of this number are found in the cervix. That the traumatisms of labor, plus coincident and subsequent infection, play an important part in such localization is shown by the fact that from ninety-two to ninety-five per cent of cervical cancers are observed in women who have borne children.

NEOPLASMS

The cause of the bleeding in uterine cancer is to be found in the tissue destruction incidental to the infiltration and erosion by the invading growth. The fibromyomatous and adeno-myomatous tumors produce bleeding by inducing changes in the endometrial capillaries when the growth is submucous and by hormonal dysfunction when situated intramurally and subperitoneally. When in the latter locations the concurrent endometrial hyperplasia with ovarian follicle cystosis and absence of corpora lutea point clearly to the dysfunction in the menstrual mechanism. Cervical polypi induce bleeding by erosion, intrauterine polypi by erosion and engorgement, the endometrium not infrequently showing hyperplasia. Ovarian tumors may incite bleeding by disturbing ovarian function and by pressure causing vascular engorgement. The granulosa cell carcinoma of the ovary, while noted at all ages, is most frequently seen after the menopause. These tumors are composed of granulosa cells which seemingly possess the ability of secreting estrin, which stimulates the atrophic endometrium to hyperplastic growth with the result that there is an apparent re-establishment of the menstrual function. The finding of hyperplastic endometrium in postmenopausal bleeding should arouse the suspicion of granulose cell carcinoma even when no ovarian tumor is palpable. By far the most important neoplasm causing bleeding, in fact the most important of all the causes of uterine bleeding is cancer, because of the danger to life with which its presence is fraught. Beginning in the cervix as a small induration, it shows early dissemination and is heralded at its onset in all but exceptional cases by but a small amount of bleeding. Most frequent between the ages of thirty-five and fifty, it is noted earlier in menstrual life, as well as long after its decline. Extension into the parametrial lymphatics is noted in from one to six months after the first appearance of symptoms, soon rendering its victim hopeless and helpless in the light of our present therapeutic knowledge. Palpation, inspection and biopsy are the means at our command for its early recognition, and one cannot stress too strongly our responsibility for failure to employ them when the opportunity presents. Cancer of the body constitutes about ten per cent of the cases of uterine cancer and occurs most frequently at and after the menopause, although as in cancer of the cervix there is no time limit for its appearance. It metastasizes much more slowly than its congener in the cervix, consequently is more amenable to treatment, but more difficult of recognition, since it is beyond the reach of palpation and inspection.

It again emphasizes the importance of diagnostic curettage and microscopical examination of the obtained tissue, since its recognition upon palpation will be possible only when it has passed beyond human aid. Radium has come to be the accepted treatment in cancer of the cervix, avoiding the blood loss, trauma and prolonged anaesthesia incidental to the radical operation and affording equally good or better curative results. Surgical removal is the procedure of choice in cancer of the body, as it is for most of the neoplasms causing uterine hemorrhage. Radium within the limitations of age, tumor size and situation, pedunculation, degeneration and adnexal disease finds a rather wide field in the treatment of fibromyomata. When judiciously employed, it is curative in selected cases and of value in decreasing or controlling the bleeding from large fibromyomata in the preparation of such patients for surgical removal of the tumors.

CONCLUSIONS

It is apparent that uterine bleeding may be caused by many and diversified pathological lesions as well as by hormonal dysfunction, two or more of which may exist in the same patient. It is equally obvious that successful treatment implies thorough and painstaking study of each case until the causative factor is determined, it being reprehensible and subversive of the patient's interest to prescribe treatment until such study and determination of the cause have been made. Once this has been established, the application of appropriate therapy, medicine, surgery, x-ray or radium, endocrine products, alone or in combination, can be intelligently directed.

◆

Thyroid Disease:

WITH SPECIAL REFERENCE TO ITS EFFECT UPON THE HEART

L. C. SANDERS, M.D.

MEMPHIS, TENN.

THE OBJECT of this discussion is two-fold: (1) to call attention to the frequency of thyroid disease, and (2) to emphasize the effect that disease of the thyroid has upon the constitution, especially upon the heart.

At the meeting of the American Association for the Study of Goiter, in Memphis in 1934, in response to an advertisement in the daily newspapers, five hundred people with thyroid disease presented themselves for study at the clinic sessions. This large group of people is evidence that thyroid disease is fairly common in this section of the country. In our offices we see as many people with thyroid disease as we do with peptic ulcer.

Classification:

1. Nontoxic, diffuse.
2. Nontoxic, nodular.
3. Toxic, diffuse.
4. Toxic, nodular.

Due to the constant pathologic changes which the diseased thyroid undergoes, the clinical picture is so altered that the clinician may find it necessary to change the classification from time to time in the same patient. Broadly speaking, if a patient of sixteen years of age has goiter it is probably a diffuse nontoxic one; if at age thirty, we diagnose it as a simple nontoxic nodular goiter; if at age forty, a toxic one; and at fifty and beyond, a goiter heart. This change from simple to toxic goiter is so insidious that only the alert physician can recognize toxicity in its insipiency.

The nontoxic diffuse goiter is the diffusely enlarged gland of adolescence. In the majority of such cases the enlargement recedes and the gland resumes its normal function throughout life. In some cases, however, degenerative changes occur, and in adult life nodules form and the simple goiter is changed into a potentially toxic one.

The nontoxic nodular goiter usually appears between the third and fourth decades of the life span and is the result of circumscribed hyperplasia in a previously diffusely enlarged gland. Its appearance represents the second stage in thyroid disease.

The nontoxic nodular goiter may remain present and harmless throughout life, but it is believed that a large per cent sooner or later undergo sufficient pathologic changes to induce a toxic state. The appearance of toxic symptoms is so insidious that a damaged and failing heart may occur and lead the patient to the examination which reveals the true cause of the trouble.

The nontoxic nodular goiter does not in itself produce any symptoms other than local pressure. If the tumor is large or substernal and presses upon the trachea or recurrent laryngeal nerve, the patient may complain of a constricting or choking sensation, or a dry intermittent cough.

The appearance of toxic symptoms in a patient with a nodular goiter represents the third stage of the clinical picture. Unfortunately, the toxic symptoms are at first so mild that neither the patient nor the physician may suspect the presence of a goiter until cardiac symptoms develop. A slight increase in the pulse rate, or some nervousness now and then, a tendency to fatigue or slight dyspnea, a mild loss of weight, and an increased blood pressure indicate the insipient damage to the cardiovascular system. The absence of thyrotoxic symptoms does not attest that the heart is not being injured by the goiter.

We now have records of a sufficient number of patients who have been carefully studied from the time of appearance of thyroid enlargement at adolescence to the time when they succumbed to a cardiac death, properly to learn and to evaluate the early symptoms.

It is now believed that the majority of nodular goiters beyond early adult life are cardiotoxic to a greater or lesser degree. The so-called nontoxic nodular goiters frequently pass to a directly cardiotoxic state without there having been compelling evidence of thyroid toxicity at any period of the disease.

A recent patient illustrates this point. A woman in her late fifties presented symptoms of dyspnea, increasing nervousness, rapid and irregular heart, and high blood pressure. She had an enlarged thyroid in adolescence which disappeared after a few years. For ten years she has been nervous. Four years ago her physician discovered an elevated blood pressure and rapid pulse, but ascribed her symptoms to a hypertension. She was under constant treatment for the hypertension unaware of the thyroid disturbance. On examination, a small nodule was found in the left lobe of the thyroid. Her blood pressure was systolic 210, diastolic 80, pulse 120, a fibrillating heart, coarse tremor of her hands, marked nervous instability, and a basal rate of plus 20. This patient had gone on for ten years under the watchful care of her physician until she reached the stage of a failing heart due to thyrotoxicosis before the true nature of her illness was recognized.

The less impressive cases in which cardiac irregularities and general evidence of decompensation develop during a period of years without other evidence of thyroid intoxication are difficult to understand unless careful search is made for thyroid hyperplasia.

In most instances, the burden of complaint usually has to do with weakness, dyspnea on exertion, palpitation, and loss of weight. Dyspnea on exertion is particularly significant, and may long antedate a demonstrable heart lesion. Patients who have gone through previous toxic states may have much to tell about nervous breakdowns, necessitating rest in bed. Since some of the symptoms begin at the menopause, the picture may be further complicated by hot flashes and a sudden feeling of weakness.

Space does not permit the detailed discussion of the wide variations which thyroid disease may at times manifest itself in the various stages of toxemia. In our present state of knowledge, however, it is possible to diagnose the many cardiotoxic cases in the early stage if we but apply our common knowledge of thyroid disease manifestations.

Toxic nodular goiter, unlike toxic diffuse goiter, produces a permanent damage to the heart. The removal of the tumor will prevent further damage, but the heart never returns to normal. Toxic diffuse goiter may be defined as that type of thyroid disease in which, as a result of unknown factors, hyperplasia takes place and results in acute toxic symptoms consisting of rapid pulse, loss of weight, increased capillary circulation, tremor, increased appetite, quadriceps weakness, and in some cases, exopthalmos. This disease may develop as an acute hyperplasia or be superimposed upon a primarily diseased gland. One of the characteristic features of the disease is that after attaining a certain degree of intensity, which it maintains for a time, it then regresses to a relative quiescence.

The danger of this type of goiter is not so much the constitutional changes it brings about during the acute stage, but the effect it has upon the heart after it has supposedly run its course.

When the diffuse toxic thyroid is removed, the constitutional symptoms disappear and the heart, as a rule, shows little evidence of permanent damage. However, if the diseased gland is not removed the patient may die of acute thyrotoxicosis, or regression of symptoms may become permanent and the patient die of cardiac failure. In such cases as the last named, one speaks of the goiter having "burned out," and in truth the phrase is justified in many cases. There is a time, a regression of hyperplasia, when the patient achieves a state of well being which may endure for years and until cardiac failure is well advanced. These observations are of fundamental importance. Whether the disease be constitutional or local, only the removal of the goiter secures the patient against further disaster.

There is another small group which must be separated from the above; that of fetal adenomas. These are derived from misplaced bits of thyroid tissue which develop as encapsulated nodules, and which are unaffected by the state of the remainder of the gland, whether it be normal or goiterous. In children they are sometimes seen as small marble-like nodules quite separate from the gland itself. They are sometimes associated with the simple diffuse goiters of adolesence. When the diffuse goiter disappears in adult life, the fetal adenoma remains. These tumors are distinctive because they degenerate slowly, present mild toxic symptoms, are prone to malignant changes, and can be removed surgically without disturbing the normal gland. Because of these characteristics, it is highly important to remove these tumors when they are discovered.

Physical Examination: The normal thyroid gland is soft and pliable and the overlapping muscles are relaxed. The diffuse enlargements of the gland have a firm consistency and the adjacent muscles may be tense and adherent. The colloid glands are irregular, presenting areas of softness surrounded by one or more nodules of decided firmness. Simple nodular goiter is difficult to feel only when the tumors are small and are hidden behind the muscles, or occupying the substernal space. These nodules are firm, movable in the early stages, but may be partially fixed if the hyperplasia has involved the surrounding soft structures. Hard, indurated gland substance or fixed hard nodules suggest beginning malignancy or calcification. It must not be forgotten that the nodules may be entirely substernal and cannot be seen or palpated. X-ray of the chest is the only means of locating these tumors, which, by the way, may attain enormous size before evidence of pressure makes their presence known.

When there is increased vascularity in the vessels of the neck, associated with a firmness of the thyroid gland, it is evidence that toxicity is present. This change in density is caused by degenerative changes in the lobules or secondary hemorrhage into the gland substance. When these secondary changes occur one may suspect accompanying heart disturbances.

The blood pressure varies in toxic goiter. During the acute exacerbations of toxic symptoms the pressure may be high. Frequently the systolic pressure is above 200 m.m. of mercury, and the diastolic below 80. The consequent high pulse pressure is a characteristic feature, but when absent it must not be misleading. When there is long standing toxic goiter with failing heart, the pressure may be low. This is true particularly during the quiescent stage.

Tachycardia is the most constant sign in toxic goiter. The rate is habitually more rapid and is not influenced by exercise except in the presence of a failing heart muscle.

Tremor of the hands is present in the more advanced toxic state. It is fairly coarse and is constant, though it is increased somewhat by excitement.

Another feature of thyroid disease is weakness in the quadriceps muscles. Patients with thyrotoxicosis in the advanced stage are unable to climb stairs due to the weakness in the knees. This feature is important because it sometimes is the first physical sign which alarms the patient and leads to medical attention.

Treatment: The heart is, after all, the chief organ which bears the burden of destruction from a toxic goiter. All the other organs and body structures may survive the severe toxemia throughout the years, but in the end, unless curative measures are instituted in time, the patient dies a cardiac death.

An analogy can well be drawn picturing the rheumatic heart of childhood secondary to tonsillitis, and the failing heart of adult life due to toxic goiter. The heart, in the former, suffers damage to the valves and occurs before or during adolescence. In the latter, the failing heart occurs after forty years of age and the disease is a degenerating one involving the heart muscle. In each instance the damage to the heart is permanent.

The encouraging feature of the goiter problem is that if the diseased gland is removed early the heart will be returned to normal and apparently remain so throughout life. This is true in both diffuse and nodular goiters. After the cardiac symptoms have advanced to a state of dyspnea, fibrillation, irregularities and edema, the removal of the goiter is merely a palliative measure. The goiter assumes a secondary role, as it were, and the cardiac condition becomes the primary consideration.

In the uniform goiter of adolescence, iodine is our chief reliance. It can be given until the gland is restored to normal, or until toxic symptoms develop. Some of these goiters will disappear and remain apparently normal for life. Others may show the presence of nodules after twenty or more years of apparent quiesence. The only place where medicine has an effective part in goiter treatment is in the simple nontoxic goiters and in the preoperative preparation of toxic goiters.

The nontoxic nodular goiter presents the greatest problem in treatment. It has been shown that iodine or thyroid extract may convert a nontoxic tumor into a toxic one and, therefore, medical treatment is contraindicated. Since it has been shown that a large number of these tumors become toxic and the toxemia produces a permanent damage to the heart, the tumor should be considered in the same category with tumors elsewhere and be removed surgically. The toxic diffuse and the toxic nodular goiters should be removed as soon as they are discovered. Iodine may allay the symptoms for a time, but it has been shown that continued use of iodine tends to increase the toxemia and may convert a mildly toxic state into a severely toxic one.

The removal of thyroid tumors is a simple and safe procedure if done before the onset of severe cardiac damage. It has been observed that practically all operative goiter deaths are due to cardiac failure from long standing toxemia.

Experience has also shown that total thyroidectomy is not generally followed by myxedema as was taught by Koker several decades ago. Even though total extirpation of the gland is necessary in some cases, the mild hypothyroid symptoms which follow can be controlled by the use of oral thyroid extract.

In the final analysis, it may be said that simple adolescent goiter can be often made to disappear by the oral use of iodine: that in all other types of goiter, iodine or thyroid extract may not only do no good, but may be distinctly harmful. Early surgical treatment may, and will, cure many patients and the percentage of deaths from cardiac disease will be distinctly less prominent.

899 Madison Avenue.

◆

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor-in-Chief
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Post-Graduate Medical Assembly

LILA SINCLAIR, Blue Mountain College, Artist
DAVID E. GUYTON, Blue Mountain College, Poet

Mid-South Post-Graduate Medical Assembly

EDITORS:

E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dewell Gann, Jr., M.D.

Mississippi State Medical Association

W. L. Little ,M.D. .... President
Joe E. Green, M.D. .... President-Elect
T. M. Dye .... Secretary

EDITORS:

Leon S. Lippincott, M.D. D. W. Jones, M.D.
G. S. Bryan, M.D.

COUNCILORS:

J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J. Gould Gardner , M.D.
Thomas J. Brown, M. D. W. H. Frizell, M.D.
D. J. Williams, M.D.

Published monthly at Booneville, Mississippi

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act of March 3, 1870.

There is no one thing common or of small importance in the practice of medicine and surgery.

At this time our greatest immediate returns may come from the cooperative application of known medical truths.

What we did and what we did not do for the wounded soldier of the War Between the States taught us that something needed to be done.

Education is a continuous process from the cradle to the grave. The medical profession is recognizing this as no other profession perhaps, but even in it there is much room for improvement.

The attendance at the Mid-South broke all past records. It was a mighty good meeting. It is the best of its kind in the United States. The program could be more practicable for the practitioner in the treatment of every day diseases that constitute the very large part of sickness and kill the most of the people.

Make your arrangements to attend your state meeting. The Mississippi State meets this year in the capital city, Jackson, on April 19 for a three-day session. Big preparations are being made by the profession of that city. The scientific session will be good, the entertainment will be super fine. It is a professional duty to attend your state meeting.

A law compelling every owner to vaccinate his dog every year is certainly needed in this state. The worry, the danger, the expense is just too much as it stands.

The only way to meet and solve our medical problems is to meet the issues fairly and squarely, talk them out honestly without prejudice over the table.

If you have not done so, write for hotel reservations at Jackson at once. The attendance this year will be record breaking it is believed. Jackson has a fine group of hotels, but it might be crowded. It is well to engage your room at once.

Many others are following now since the Mid-South showed the way. This is all right. We are glad for them to catch the vision.

We have an idea that Mississippi had the largest per cent in attendance at the Southern Medical of any state except Louisiana. This was fine.

The American Medical Association meets this year at San Francisco June 13-17, 1938. It will be a fine trip no doubt. You will want to make this if at all possible. This trip will be delightful and profitable. The American Medical Association is the great medical association of the world. Every doctor who can possibly do so should attend.

Let us not forget that the per capita distribution of funds for the indigent sick as we have it in Mississippi is a great step forward in solving our medical problems. This distribution with the sixty hospitals that Mississippi has is making the country people more safe in medical security. The system should be completed, should be made more perfect. We should have a two year internship to offer in our state. If we had a modern charity hospital with the other splendid hospitals of Jackson, the Mississippi State Hospital, the State Board of Health and the Tubercular Hospital could give a very fine course, both to the young men just finishing and short courses to men who have been in the practice for years. What we need and can do we should do.

When this journal was adopted as the official organ for the Mississippi State Medical Association, it having previously been adopted as official organ for the Mid-South Post-Graduate Assembly, Dr. Anderson invited me to join the editorial staff as a regular contributor. I consented on condition that I might be accorded freedom of thought and expression, stating that I would initial my contributions thus relieving him and the journal from any responsibility for my utterances. Hence, any comments regarding the recent meeting of the Post-Graduate Medical Assembly at Memphis are my responsibility. The meeting was a success in many respects. It was more largely attended than any previous meeting. The lectures given were by men of national reputation and recognized as authority in their special lines. As I remember only one listed essayist failed to appear and he was substituted by a teacher of repute. So on the whole it would be hard to get a better group of teachers together or a more varied list of important subjects covered. But on the whole tne ground covered was very largely theoretical rather than practical. A few of the speakers were good entertainers as well as good teachers. Among the entertainers, Dr. A. Graeme Mitchell ranked well. His subject matter was well handled also. Dr. J. H. Means, in my thinking, was particularly practical. Dr. Oschner is certainly one of the most versatile of the younger teachers of the day. His subject, peripheral vascular disease, is more important than many may think and has been neglected all too much. Dr. Buie, altho from Rochester, was quite practical and he dealt with a basic problem—namely, diseases of anus and rectum. Dr. King, of Tulane, opened the congress with a splendid discourse on "Common Complications in Pregnancy and Labor." Dr. Moore, of Baltimore, discussed syphilis from the public health viewpoint and quoted from our Dr. Felix J. Underwood. Dr. Willius, also from Rochester, discussed cardio-vascular syphilis. This subject is of vast importance to the profession and to the public. Dr. Hutton, of Chicago, dealt with a problem of much importance, one that is destined to loom large in the near future—clinical importance of endocrine developments. He handled the subject well, but much of the subject is still shrouded in uncertainty. One man whose name I withhold, who, also, hails from Rochester, one whose fame is nation wide and one whom I have wished to see and hear, was very disappointing to me. In fact it seemed to me to be an hour of criticism, bombast and egotism with no helpful suggestion or real teaching. Notwithstanding the fact that the men on this program are outstanding in their special fields, it was evident that a bit of jealousy exists between certain groups. The Boston group, the Baltimore group, the Rochester group and the Cleveland group seem to eye each other with more or less suspicion if not with jealousy. Each of these groups was represented and this fact added much to the importance and value of this assembly; for it is a recognized fact that splendid teaching talent is to be found in each of these groups. I have not attempted to give a synopsis of the lectures delivered, but rather have touched lightly on the personel of the faculty and the subjects presented. Unquestionably the meeting was a great success and it is to be hoped that, as the years go by, the doctors of our territory will come, more and more, to appreciate the organization that makes it possible for such choice men to be brought to our midst. The committees that arrange these meetings are to be thanked and praised, but the one medium that has done most to promote and foster the undertaking is *The Mississippi Doctor* and its editor-in-chief, Dr. W. H. Anderson. It is at great expense, both in energy and money, that he has kept the public interested and informed as to the great benefits to be derived from these meetings. Of course, every one appreciates his efforts in a way. But no substantial recognition has, as yet, been given him and his journal. Personally, I think the membership fee should be larger and the journal be sent to each paying member and a reasonable subscription fee should be taken out of this amount. New Orleans has organized an assembly patterned after ours and they charge ten dollars per member. I do not know it to be a fact but I feel sure the New Orleans Journal gets substantial support. It should if it does not; for it helps in a very material way to make these meetings a success. Of course, if *The Mississippi Doctor* should be sent to all doctors who attend these meetings the advertising secured would be considerable, but it is too much to expect one man to contribute so much to the undertaking without any direct compensation—it simply cannot be done without co-operation. Think these things over and perhaps the justice of the suggestion will be apparent.

G. S. B.

DR. AND MRS. GANT HONORED ON GOLDEN ANNIVERSARY DAY

Fifty years ago, February 8, Dr. and Mrs. H. A. Gant walked down the aisle of the old Presbyterian church at the corner of Sixth and Garden Streets as a happy bride and groom.

Dr. Gant was a handsome young physician who came from Water Valley, Miss., to claim as his bride the charming Miss Mary Lou Rainey, daughter of W. S., and Mary Minter Rainey and sister of the late Horace Rainey, whom he met while on visits here to his brothers, R. C., and J. N. Gant. Dr. Gant was born in Columbia but removed with his parents, the late Mr. and Mrs. John Isom Gant, to Mississippi when he was a child. He was educated at the University of Mississippi and later removed to Water Valley, Miss., where he began his practice of medicine. He returned frequently to Columbia to visit his brothers and more often when his friendship with Miss Rainey developed into romance.

An account of the wedding which was a notable nuptial event on account of the prominence of the two families, is taken from the files of **The Democrat** and is as follows: "Married yesterday afternoon at 4 o'clock in the First Presbyterian Church Dr. H. A. Gant of Water Valley, Miss., and Miss Mary Lou Rainey, of Columbia. The ushers were T. A. Divine, Memphis; Arthur Goodwin, Nashville; A. S. Gant, Memphis; W. A. Shackelford, Water Valley, Miss.; Horace Rainey and Edgar James, of this place. The Rev. J. C. Mitchell, pastor, performed the ceremony and Mrs. A. N. Akin rendered the wedding music. The church was filled with friends of the contracting parties, and the well wishes were genuine. The bride is a woman of intellect, refinement and of lovable disposition and none know her but to love her. She is the daughter of Mr. W. S. Rainey. The groom is a prominent physician of Water Valley, Miss., and is a brother of R. C., and J. N. Gant of this place. They left immediately after the wedding for New Orleans. May their future be as bright as the golden sunshine on the afternoon of the union."

After attending Mardi Gras in New Orleans, the bride and groom went by boat to Memphis for a visit with relatives and thence to Water Valley, Miss., where they started housekeeping. In 1900 they removed to Jackson, Miss., where Dr. Gant became a partner of Dr. Hunter, who was connected with the Mississippi State Board of Health. It was then his professional career that was to prove quite eventful started. He saw service in four widespread epidemics including the yellow fever scourge in Mississippi when he made a name for himself not only because of his brilliant service but on account of his indomitable courage, though many times he experienced harrowing escapes.

In 1908 Dr. Gant abandoned his medical practice for a time and went to Georgia for a few months on account of his health. An impulse to return to his native Columbia was too strong to resist and he and Mrs. Gant and two sons, Minter and Preston, came here during the year of 1908 and have since made their home here with the exception of Minter who is living in Knoxville.

Widely beloved the couple were the recipients on their golden wedding day of many congratulatory messages which came from far and near. Throughout the day at their home on Trotwood Avenue they received informally many friends who came to felicitate them in person, many of the callers bringing gifts of flowers and other tokens of good wishes and esteem. Among the gifts was a tiered wedding cake, beautifully embossed, and surmounted by a miniature bride and groom. Many telephone calls and telegrams were also received. It was a happy occasion for the couple and a fitting climax to a romance that started more than fifty years ago and has grown sweeter with the passing of the years. They married and have lived happily ever afterwards.

Columbia has no more universally beloved couple than Dr. and Mrs. Gant with whom Time has dealt with a gentleness as though in harmony with their natures. They both enjoy splendid health and are still blessed with the mental alertness with which they were so richly endowed. The art of growing old gracefully has truly been mastered by them and borrowing from the editor of fifty years ago we say, "May their future be as bright as the golden sunshine on the afternoon of the golden wedding day."—The Maury County Weekly.

DR. OTIS S. WARR

Since the last meeting of this great assembly one of its most beloved members has dropped from our ranks and passed to his rest eternal. About fifteen years ago a half dozen or so men dreamed a dream for the Tri-State Medical Association; they saw a vision and in that vision the urgent opportunity for a bigger and broader service. And the more than thirty-five-year-old association was born again, regenerated, and it grew and waxed strong in the medical church and was given a new name, the Mid-South Post-Graduate Medical Assembly. At this time Dr. O. S. Warr rendered most valuable service as a member of the program committee and as an ardent and active member of the association. His interest was always sincere and unselfish and his judgment good.

As a general gives his life on the battle field, Dr. Warr gave his in tender, efficient and unselfish service to the flood victims. At the time of his death he was president of the Shelby County Medical Society. He was a member of the faculty of the University of Tennessee from 1911 until his death. Dean Hyman declared him the most beloved man on his staff. Dr. Warr was a specialist in internal medicine and an authority on the treatment of heart disease.

Dr. Warr was a frequent and gifted writer on varied subjects for medical publications, he devoted much of his time to the work of the local society as well as the other professional groups of which he was a member, including the American Medical Association, the American Association of Physicians, the American Heart Society and the Southern Medical Society.

Dr. Warr was born in Darlington, South Carolina, April 30, 1881, and after his preliminary education there, he attended George Peabody College in Nashville. He entered the University of Nashville Medical Department, which is now the University of Tennessee, in 1904, graduating in 1907.

He did interne work for four years in New York hospitals, including two years at Bellevue, and in 1911 began practice in Memphis. In 1913 he did post-graduate work at Harvard and in 1913-14 was professor of physiology at the University of Tennessee.

A post-graduate course at the University of Vienna in 1914 was interrupted by the outbreak of the World War. Dr. Warr applied for medical service with the American Army and acted as a member of the Medical Advisory Board.

He had served as secretary of the Memphis and Shelby County Medical Society in 1918-19 and was active in the annual clinics of the Mid-South Post-Graduate Medical Assembly.

Dr. Warr leaves his wife, a son and two daughters, Mrs. Doris Thorne, wife of Elmer E. Thorne, of San Francisco, Chief Officer of the S. S. President Taft of the Dollan Line, and Miss Boyce Warr, of Memphis. He also leaves a brother, Leslie Warr, of Lamar, S. C.

Dr. Otis Warr was really and truly the beloved physician. He was revered and respected by members of the profession. He was loved and trusted by the people of the Mid-South. Scores of physicians of our territory depended upon him as a consultant. It was always pleasant and profitable to consult with him. He was an earnest and diligent student. He kept informed. He was safe. He did a great work for organized medicine. He was one of the corner stones in building the Mid-South Post-Graduate Medical Assembly to where it is now. He was a man of vision and practical application. He was kind, tender and considerate, but yet very courageous.

NOW, BE IT RESOLVED by this assembly in session at the Peabody Hotel, this the 15th day of February, 1938, that we deeply appreciate the service that Dr. Warr rendered to this association; that we sincerely regret his absence and that we offer our deepest sympathy to Mrs. Warr and her daughters and son, and, further, that a copy of these resolutions be spread on the secretary's book, a copy mailed to Mrs. Warr and one published in *The Mississippi Doctor,* the official organ of the association.

(Signed)
W. H. Anderson, Chairman
Committee

Notes and Observations on Health Subjects Made in South Africa in 1937

By W. A. EVANS, M.D.

PNEUMONIA

Memoranda of talks about pneumonia held at Johannesberg around July 10, 1937 with Drs. Orenstein, Lister, Irvine,, Ordman and Grober (of Jena).

Drs. Orenstein, Ordman and Lister are agreed that pneumonia among natives employed in the Rand mines has decreased until now it is only one fourth as high as it was when at its peak (the influenza years excluded) or even less than that. Dr. Orenstein thinks the decline started before the use of vaccine was started. All are agreed as to the efficiency of the vaccines as it now is. Dr. Orenstein thought the old vaccine was useless and finally discontinued using it in the mines under his control. He is using the new vaccine in his mines. Dr. Lister became convinced the old vaccine had become useless and changed it to the new method. He says the vaccine which is now being used with success is a mixture of bacteria cultivated from the lungs of men dying locally of pneumonia and of sputum of local cases of pneumonia. It is composed largely of various strains of pneumococci, strains of streptococci, and of other locally prevailing bacteria. The vaccine must be changed every few years because of changes in organisms which cause pneumonia. Organisms to produce a vaccine for a given locality must be obtained in that locality. Thinks pneumonia has changed bacteriologically and clinically since the influenza pandemic of 1918. Can not say how much of the change was directly due to the pandemic. Every native employed by the large gold mines on the Rand is vaccinated against pneumonia as a condition of employment. Vaccination is done by the one shot method. He does not know how long immunity lasts. But those who remain on the Rand longer than a year are vaccinated yearly. As a rule on the Rand, natives sign a contract for one year and at the end of that time they go back to their homes in the brush. What happens to them after that they do not know. But statistics as to what happens while they work for the mines are excellent. Drs. Lister and Ordman have tables and charts which show the prevalence of pneumonia in Rand mines over a period of more than 25 years. These tables show declines in all mines, but the decline is greater in the mines requiring vaccination than it is in the others. In some mines they followed the policy of vaccinating half the personnel leaving an unvaccinated half as a control. The decrease in pneumonia was greater in the vaccinated half.

Drs. Lister and Ordman have made some studies of the epidemiology of pneumonia comparable with those made by Dr. Arnold. I gave them copies of Arnold's charts and they gave me copies of theirs. The Lister and Ordman series do not show as sharp peaking in August and September corresponding with February and March on Arnold's charts. Dr. Orenstein believes in vaccination but he is not as enthusiastic as Drs. Lister and Ordman.

The conditions in mines make for pneumonia. The men go to work at 4:00 a. m. At that hour the atmosphere temperature is very low (say 50 degrees lower than the mine temperature). In a few minutes they are dropped in elevators several thousand feet (6000 to 8000) and go to work in less than 15 minutes in atmospheric temperatures that register 86 degrees on a wet bulb thermometer and where there is almost 100 percent saturation. They work hard and long at these temperatures and humidities. Then they end the day's work and are quickly whisked by rapid elevators several thousand feet to outside temperature and humidities.

Dr. Orenstein thinks exposure to great variations in temperature is the chief determining factor in pneumonia. Thinks the disease is most prevalent in those places where there is the greatest daily variation in temperature.

Some stress the presence of dust in the air as a cause of pneumonia. When natives come from the brush to work in the mines and to live in compounds they are liable to die in the first three months from pneumonia or to contract tuberculosis. If they get by this period they are not so liable to have either disease.

Talk with Dr. Mottoule of Companie Miniere Congo Belge, Elizabethville

Dr. Mottoule gave me a copy of his report. He showed me figures for his mine on pneumonia going back 25 years. Disease has decreased markedly. They do not vaccinate against pneumonia although they have great faith in vaccination against other diseases. They tried vaccination against pneumonia several years ago but concluded it was useless. The improvement in their pneumonia rates they ascribe to two causes. (1) The natives bring their families out of the brush with them and they stay longer in service. In the old days the men stayed one year. They now sign up for 3 years and an effort is made to get them to renew the contract for another 3 year period. Nineteen percent do renew. Most of the natives who develop pneumonia get it in the first year of service.

(2) The workers are never crowded in their living quarters. At first their laborers lived 8 in a room in compounds. Now they are housed in individual houses, two single men or one man and his wife in a room. Children may sleep in the room with their parents until they are six years old. Older children must sleep in a separate room. Dr. Mottoule added another reason in discussing other diseases. This is: The hygiene of the mines is much better than it was. There is but little dust in the air, due to wet drilling. The ventilation of the mine is good everywhere except in the new and poorly organized sections and when the men quit work they put on,—at once before they leave the mines—a good warm coat which the company supplies.

Talked with Mr. Campbell, a very intelligent 7th Day Adventist Missionary who said the great cause of death among the negroes was pneumonia. A native who gets pneumonia dies very quickly with it. He thought pneumonia was due to the very great difference between the temperature of the cold windy night and the hot days, and to the fact that the native wear very little clothing and have very little bedding and their houses have no heat. They usually have a fire going outside the house and when they get cold at night they will get up and go out and sit by the fire.

Mr. Campbell got on the train in Angola-Portuguese, West Africa. This country is very high and it is treeless. The cold strong winds are very cold at night.

Talked with Drs. Roger and Dowds of the Roan Antelope Mines, Katanga District Northern Rhodesia. They use pneumonia vaccine made after Sir Spencer Lister's method by a man trained by Sir Spencer. They make it from lungs of persons who have the disease. Get it by puncture of lungs. Must change the organisms they use for vaccine from season to season else it becomes impotent. Once they stuck to the old cultures too long and vaccine became impotent. Changed to new organisms and it became potent again.

They vaccinate every employee yearly against pneumonia. All employees are vaccinated against pneumonia when they go to work under contract.

In the treatment of pneumonia they use a mild general non specific antigen if they see the case early. It produces no shock. Years ago they quit using the general antigen that produced so much shock. They make no effort to type pneumonia. Think it useless as a therapeutic procedure. Types vary too easily and too greatly. (Nowhere in Africa did I run across typing and therapeutics based on it.)

The present methods of pneumonia control have materially lessened the prevalence of pneumonia. In former days pneumonia had a high peak in July and August. Now there is no peak at this season or a low one. Instead there is a small January and February peak (the summer season and about the end of the rainy season).

They examine boys when they hire them and on basis of weight, height, general conformation and general appearance they classify them into types A and B. The type B boys are more prone to pneumonia. When they are started to work they are given lighter work and shorter hours and put to work on regular mine shifts more gradually. Some of their improvement in pneumonia is due to gradually accustoming work boys to work, some of it is due to housing in smaller group units.

Talked with Dr. Shennon, health officer of Bulaway U. S. Rhodesia and formerly medical director of some asbestos mines.

"We do not vaccinate against pneumonia."

Statement by Dr. Dacco, medical officer Congo Belge per Kantanga:

"Our worst disease is pneumonia. We have not had much success in preventing pneumonia by the use of vaccines. I attribute our lowered death rate from the disease to improved hygiene and sanitation more than to vaccines.

Season does not affect the seasonal distribution of pneumonia here as much as it does in Chicago. The peaks of prevalence of the disease are not relatively so high as they are there."

The physician in charge of the hospital for whites at Elizabethville, Congo Belge, said, "We fear pneumonia above all other diseases."

(An analysis of reprints of articles on pneumonia by Sir Spencer Lister and Dr. Ordman, of Johannesburg, and by Rogers of Lugansha, Northern Rhodesia, will appear later in this series.—Ed.)

ANALYSIS OF DR. A. J. CRONIN'S "THE CITADEL"

The writer had not been in South Africa long until he began to hear people talking about *The Citadel.* In order to ascertain whether *Gone With the Wind* was popular there he would drop in book stores and libraries to make inpuiry about the calls for Miss Mitchell's book. The booksellers and libraries had a way of replying that much the most popular book of the day was *Gone With the Wind;* but that they were also having trouble keeping supplied with *The Citadel.* In September both books were more popular than they had been in June. Heiser's Odyssey was also being widely read ranking third to the other two. Before August Lord Horder's medical essays were also being called for but they never reached the popularity of "The Odyssey" and were far below the number of calls for *The Citadel.* In September *The Citadel* was being syndicated to African daily papers and this led to a considerable increase in advertising of the story as well as a large increase in readers. It was being read by all classes of the reading public in different sections of society.

The reason for its great success lay in a well told romance. Dr. Manson, the hero of the story, falls in love with a school teacher and marries her. In the course of years he undergoes a change in personality and is as his wife says, no longer the Dr. Manson she married. In this period of changed personality he neglects his wife and is on the verge of an affair with another woman. A great tragedy wakes him, causes him to realize what has happened and to return spiritually to his wife. The ending is at once very happy and very unhappy. In the course of their celebrating the wife is killed by an automobile. The simple story of married love is told so well that it won a wide reading for *The Citadel.*

The members of the medical profession have no special interest in the romance itself. They are interested in the back ground. The attraction of the love story has caused more than a million people, possibly several million in this and other English speaking countries, to read some things both pleasant and unpleasant about physicians and the practice of medicine. Since the author, Dr. Cronin, is a physician and all the principal characters are physicians and their families and since all the events have to do with the practice of medicine, lay readers are told much about the inner life of medicine and accept it as authentic.

Although the book was written by a physician in Great Britain some thirteen to twenty years after the adoption of health insurance, so called state medicine, by that country and deals with the practice of curative medicine in England and Wales from 1924 to about 1930 almost no reference is made to state medicine. In one place Dr. Manson is quoted as saying, "Because of his M.D. and M.R.C.P. degrees he wanted a non panel, non dispensing practice." Again in a spirit of spiritual depression when he was 31 years old and getting ahead too slowly to satisfy him, Dr. Manson exclaims, "There ought to be some better scheme—O! say, State Control." Then he remembers Dr. Bigsby and the M.F.B.—"No! damn it—that's hopeless — burocracy — chokes individual effort—it would suffocate me."

Also indicating that he did not think state medicine was the answer to the question, Dr. Manson telling of his experience after he became a private practitioner said, "All the girls at Lauriers were insurance patients. They were compelled by law to be on the panel." Even though they paid for medical service at the hands of a panel physician they consulted Dr. Manson and paid his fees.

The Citadel indicates that Dr. Cronin had not had much close contact with state medicine but what he had seen of it had not impressed him favorably. In his search for a method of practicing medicine that would satisfy him Dr. Manson tried various plans and the book exposes the shortcomings of each. He was an exceptionally well educated man and very able, but he was a square peg and he had trouble finding a hole into which he could fit.

His first attempt was with that modification of state medicine that goes by the name of industrial medicine. He left his interneship to become an assistant to Dr. Page, the paid physician of a large mine or group of mines. In this position he saw and describes the bad and the good points of the practice of industrial medicine.

His second experience as a practitioner of medicine was as a junior physician, a salaried employee of a health benefit society, one of those cooperative health groups, which under the name of Friendly Societies, were made the basis of the British Health Insurance scheme. One of the unpleasant parts of this experience was having to split his salary with Dr. Llewellyn.

His next venture was as a research assistant in a government research laboratory. He describes the seamy side of practice in that field. Finding no great degree of satisfaction in either of these fields and having paid off his debts and accumulated some money and some confidence he ventures into the field of the private practice of medicine. He has had many painful experiences with G.P.'s, or practitioners of general medicine. His friend being a very outspoken industrial surgeon is made to say, "You know I hate the very sound of those fatal letters G.P. even of the good old type." Man says, "G.P.—quack of all trades. Don't they ever change the system?" Referring to the fact that general practitioners were expected to have a working knowledge of everything on medicine and at the same time were too busy and forced to lead lives that were disorderly to permit them to read and to attend scientific meetings, Manson said, "There ought to be a law to make doctors keep up to date."

In spite of all this Dr. Manson bought the office and books of Dr. Foy and so far as possible took over the practice of that recently deceased physician. The next hundred or more pages is given over to a discussion of the triumphs and failures of Dr. Manson as a general practitioner of medicine, first with no hospital or dispensary connection; no place or any panel and no membership in any medical society and no acquaintance with local physicians. This part of the story will prove very interesting to the physicians of Africa and the United States in neither of which countries is there state medicine.

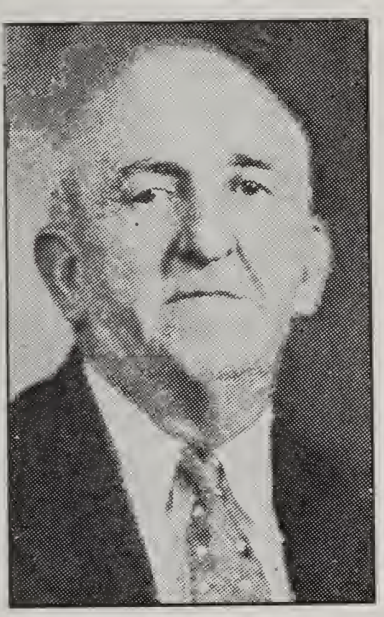
In this experience very little is said about the competition from state medicine but there is much about competition from men on the staffs of closed hospitals, specialists and fee splitters. Dr. Manson himself becomes a fee splitter. It is during this period that his affection for his wife became cold. He discusses dispensaries or the dispensing of medicines in a doctor's office—surgeries, (not meaning what the term means in the U. S.) physicians, office attendants, hospitals, nurses and many other subjects. In the course of time he became a hospital staff member and consultant as well as general practitioner. These two relations he found have seamy sides and he tells of them. Finally in spite of having made and accumulated money, of having a large and lucrative practice and of being a success he is dissatisfied.

A tragedy—the death of a patient of his who had been operated on by a fee splitting surgeon, caused him to chuck his practice, abandon all he had gained, sell his home and take up group medicine. "Group medicine is the answer; the perfect answer." He refers to American experiences and especially to the Mayos.

Out of his condemnation of the fee splitting specialists there grew charges against him before the licensing board. An effort made to revoke his license almost succeeded. The charge was that he removed a case of consumption from an old fashioned hospital where they would not do a needed compression to a non recognized hospital where compression was done and the patient's life saved. In outlining the irregular hospital and its irregular physician, Dr. Cronin had in mind Spahtlenger, although he camouflaged by calling his patient to an unrecognized hospital and there assisting an unlicensed physician in compressing the lung.

The book closes as Manson, retaining his license, joins two of his friends in opening a group clinic in a place about the size of Rochester. This book deals with the problems of the practice of medicine and both the good and the bad points of physicians and their work. If several millions of patients have read *The Citadel* many thousand physicians should study it.

DR. R. J. BROWN



Dr. R. J. Brown, of Iuka, will preside over the first annual meeting of the Northeast Mississippi 13-County Medical Society at Pontotoc on Tuesday, March 15. Last year Dr. Brown won the national championship in class E. at Vandalia, Ohio, in trapshooting. On February 16, 1938, he won the Mississippi State Handicap Trapshoot Championship. In 1936 he won the single championship. At the national event next August in Vandalia, Ohio, he will be on the spot and make the boys take notice. Dr. Brown loves the sport. He has a steady nerve and a straight eye. Congratulations, Dr. Brown.

PROGRAM FOR THE NORTHEAST MISSISSIPPI THIRTEEN-COUNTY SOCIETY

To be held in Pontotoc, Pontotoc County 2:00 p. m. March 15, First Methodist church.

1st paper: Congenital Hypertrophic Pyloric Stenosis, by Dr. O. B. Crocker, Houston, Miss. Discussed by Drs. Thomas Wolford and R. B. Cunningham.

2nd paper: Injuries of the Elbow, by Dr. J. R. Hill, Corinth, Miss. Discussed by Drs. R. D. Kirk, Jr., and M. Q. Ewing.

3rd paper: The Treatment of Congestive Heart Failure and Edema, by Dr. Lyle Motley, Memphis, Tenn.

4th paper: Pneumonia, by Dr. A. E. Bostick, Iuka, Miss. Discussed by Drs. E. B. Burns and A. E. Brown.

TO ADDRESS NEW ORLEANS PARISH MEDICAL SOCIETY

Dr. Walter W. Chapman, B.A., M.D., LL.D., F.R.C.S. (Edin) 1221 Mountain St., Montreal, Quebec University of Edinburgh, 1895. Emeritus Professor of Gynecology and Obstetrics, McGill University Faculty of Medicine; Consulting Obstetrician and Gynecologist, Royal Victoria, Montreal Maternity Hospital, will address the New Orleans Gynecological Society and the Orleans Parish Medical Society on March 14th, on John Hunter, the first scientific surgeon.

You will read with much interest Dr. W. A. Evans in this issue and in the issues to follow. In this issue his notes on pneumonia and his review of "The Citadel" are very interesting.

We offer our most cordial congratulations to Dr. and Mrs. H. A. Gant, of Columbia, Tenn., on the celebration of their fiftieth wedding anniversary. They are a happy couple. They have served well. We sincerely wish them many more happy years.

Dr. C. R. Crutchfield is anxious that we have a history of the Mid-South brought up to date, fifty-three years and that this and the papers of this year be put in book form. If you know a president please send us his name, write anything of interest about this association. Would you like to have a copy of this book? Let us know.

Send in your subscription now so you will not miss any of the Mid-South papers. Help us that we may help you.

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

Post-graduate Medical Education*

H. W. KOSTMAYER, M.D.
New Orleans, La.

Few, if any, will contradict the statement that medical education has made great strides in the last quarter of a century. There are many who contend that the tendency has been toward too much science and too much use of laboratories and machines and consequently away from purely clinical or bedside medicine, but none doubt a general uplift in standards, preliminary and actual. Unfortunately, the same cannot be said of postgraduate medical education. However, there are many indications of an awakening of the profession to the importance of this neglected field. Indeed, many are coming to the realization that post-graduate study is as important as undergraduate study, for no matter how well trained a physician may be on graduation he soon drops rapidly back unless he continues to study. Whoever doubts this has only to look over the advances made in the past twenty-five years to admit that he who graduated twenty-five years ago would hardly understand present day medical conversation unless he had read and studied as the science developed. One has only to think of insulin and other endocrine products, of the electrocardiograph, of x-ray improvement, of vitamin therapy, to acknowledge the force of this statement.

There have long been available and still are available graduate courses leading to advanced degrees. These require two or three years for completion. These courses play an important role in medical education and are offered by all medical schools, but they of necessity can be taken only by the very few.

For many years a few post-graduate medical schools have been giving short review or refresher courses of from four to twelve weeks. These, too, play their part in medical education. They offer opportunity for the registrant to see and hear teachers of recognized attainments in certain fields, and they bring a certain stimulus to better endeavor. There seems a strong tendency to continue such courses, though they, like the undergraduate curricula, need considerable improvement. It must be remembered, though, that even at their best these review courses can still reach only comparatively few of those needing postgraduate study. Not everyone feels that he can leave his work and his income for six or eight weeks and pay tuition and board and lodging costs at a medical center. To meet this difficulty and make such reviews available to a larger number the Commonwealth Fund of New York instituted fellowship awards in Mississippi some five years ago. To date 101 physicians of this state have attended post-graduate courses at Tulane, taking reviews in general medicine, and in surgery, gynecology and obstetrics. A splendid course in laboratory technique and diagnosis was included, as were also x-ray interpretation and genito-urinary diseases and dermatology for the general practitioner. The class for this session has just completed the twelve weeks course, and it is hoped that interest in these fellowships will continue.

Many of those interested in getting the physician to continue medical study have become more and more impressed with the difficulty of taking busy men from their practices, and so the idea of taking medical teaching to the physicians was conceived. Graduate medical assemblies are growing in number and in attendance. They, too, play their part, but can in no way be expected to replace the longer systematized courses. Their popularity suggests that postgraduate study is desired by many who cannot be long absent from their practices. Organized medical societies sponsored and conducted series of lectures in various communities of a state, for an evening or for several evenings, on one subject or on a variety of subjects. These efforts have attained a commendable degree of success, but on the whole they are occasional rather than continuous, and interest and attendance are not steadily maintained. Believing that this weakness can be eliminated by having a permanent, well organized group to systematize this work there has now been organized in the Tulane College of Medicine an "Extension Division of Graduate Medical Teaching." This has again been made possible by the generous help of the Commonwealth Fund, and by the broadminded cooperation of the Mississippi State Board of Health and the Mississippi State Medical Association. While there will be a permanent medical faculty in this division, outside instructors of ability will be used as frequently as necessary to round out a program of sound medical teaching. The faculty will lend permanency and continuity to a project which has hitherto been conducted more or less spasmodically.

---

*Read before the Section on Hygiene and Public Health at the Seventieth Annual Session of the Mississippi State Medical Ass'n., Meridian, May 13, 1937.

Th Extension Division of Tulane will be in charge of a director who will devote his entire time to the organization and to teaching. He will have an experienced field organizer who will arrange for classes of a week or two weeks instruction in one place. As obstetrics has but recently been thoroughly covered, and as pediatrics is now being given, it is probable that the subject next to be offered will be left to the decision of the Mississippi State Medical Association. Subjects that are thought timely to be chosen from include:

1. Internal medicine, with bedside diagnosis, including gastroenterology, cardiology, and syphilology.
2. Medical gynecology, especially office procedures designed to relieve and cure without sending the patient to the operating room.
3. Minor surgery and surgical diagnosis, including such every-day conditions as fractures, ulcers, and infections of the hand.

Certainly after this program has been completed it will be in order to start obstetrics again, to be followed by pediatrics and so on through the entire course, adding to or taking from as experience teaches, constantly improving the work as it progresses.

From such an organization as is now set up there can be drawn, at a moment's notice, as it were, speakers for special meetings. Hospital groups can ask for and obtain for their own institution a course in laboratory procedures including information as to the minimum requirement in point of equipment. From this same permanent organization there can and will be supplied on request teachers competent to conduct pathological conferences for hospital groups. Suggestions for improvement and elaboration of this program will always be welcome, and time and experience will teach those conducting it the ways and means of supplying the needs of the profession.

Agitation for change in the system of medical practice has grown very insistent of late. Criticism has been offered of the quality of service given the public. Whatever of truth there is in this is due to the failure of physicians to keep abreast of medical knowledge. Perhaps poor financial returns to the practitioner may often be traced to his failure to pursue his studies after graduation. It is seriously believed that the project now being undertaken will be a step in the direction of stifling these complaints, not only by the actual knowledge disseminated but also by the stimulus it will give to continued reading and study. The organization stands ready to do its part. The success or failure of the undertaking will be determined largely by the response of the medical profession, and in this response may be the answer to the question, "Are we to have state medicine?" For it seems quite apparent that universally efficient medical service would preclude any discussion of change in practice. Let's take the first step in the direction of this goal—let's seize on this opportunity for keeping abreast of progress in our profession to the end that the public itself will resent suggestion of change—to the end that the patients of each of us can feel that they are receiving at our hands the best that modern medical science can offer. The opportunity is here—ours is the fault if it is not improved.

DISCUSSION

DR. MAXWELL E. LAPHAM, (New Orleans): The paper just read by Dr. Kostmayer is a very concise presentation of the aims of postgraduate medical education. It is obvious that a physician needs to continue his education throughout his active years.

As you all know, postgraduate medical education has been a reality in Mississippi for several years and the extension courses given seem to have met with some favor by those of the profession who have attended. Over half of the physicians in the state have enrolled for some of the extension courses and the questionnaires sent out indicate that most physicians would like to have such work continued.

The perpetuity of this work depends largely upon the continued interest and cooperation of the physicians in the state and I have reason to believe that whatever organization conducts this work will have the support of the medical profession in Mississippi.

Heretofore, the Mississippi State Medical Association and the State Department of Public Health have organized and carried on these extension courses but hereafter it is the plan to have medical extension teaching in Mississippi, and I hope in other adjoining states, conducted under the Medical Extension Division of Tulane University.

I have always felt that such teaching needed the support and prestige of a medical school so that the men doing the instructing would have background as well as a close association with clinical work in a medical center. If one continues to conduct courses, as I have done in the past, he soon loses the background of clinical experience because he does not have the opportunity to practice. So the logical outcome is to have the extension work conducted by a reputable medical school cooperating with state organizations such as the plan in Mississippi.

The organization of the work will be very much the same as it has been in the past—classes will be planned by a field organizer. The courses to be given will be selected by the members of the state medical association so that the majority of men will receive instruction in those branches of medicine which they most want and need. Apparently at the present time a course in syphilology seems logical because so much interest is being shown in the control of syphilis. Probably the course will be of a week's duration since it is planned to use men for teaching who are best prepared to present the subject and, therefore, they will not be able to leave their teaching and practice in the medical center from which they come for a longer period than a week. If it seems feasible, the service of a clinician from some other medical school than Tulane will be secured in order to make the work of as high standard as possible.

I feel that I have many friends in Mississippi with whom I desire to keep in touch. As director of the Extension Division of Tulane Medical School I will use every effort to cooperate with the various medical organizations in Mississippi to make this type of post-graduate instruction continue to be successful.

DR. IRA B. SEALE (Holly Springs): I have nothing to add to the discussion only to give my testimony, coming from one who has profited by this post-graduate course. I was fortunate enough to get one of the Commonwealth scholarships and I do not think there is a better thing that could come into a doctor's life, especially to those who have to stay on the job and cannot afford the loss of time and expense of a post-graduate course. So many of the doctors are like me -have a family to educate and do not feel that they can afford the expense and loss of time. I know there were some criticisms of the course when we first started in 1934, but we realized before very long that it was best for us—a thorough and well planned course for the short time we had. The thing that impressed me very much too, as to the value of this course, was the type of men we have at Tulane. If Dr. Kostmayer was not present, I should say this for him, "Never did I hear him give a lecture to a class that he did not instill into us some of the highest ideals of medical practice." He not only taught us the scientific subjects but he instilled into every heart in that class the highest ideals of medical ethics. All of you know the value of Dr. Lapham's course. I preserved all the manuscripts of those lectures and I think more of them than any textbook on obstetrics I have. All of us know what Dr. Strong is. I think everyone who heard him derived a great benefit from it. I do not see how anyone could object to the investment in these postgraduate courses. I do not think you will find any criticism except among those who did not take advantage of the opportunity. Those who did attend were very highly pleased with the post-graduate courses, and I think, personally, it is one of the most progressive steps launched by the profession in my experience.

DR. HARVEY F. GARRISON (Jackson): I would like to add just a few words of commendation and praise for the class post-graduate work that is being done in Mississippi. In the first place, I think we owe Dr. Kostmayer, the faculty of Tulane Graduate School, the Commonwealth Fund, the State Board of Health and the Mississippi State Medical Association, a very cordial vote of thanks for their activities in our behalf. You know that many of the doctors in Mississippi are not financially able to go away and pay for post-graduate work, but I think the medical profession of this state, and I believe that I am in a position to say that I know that the medical profession of this state, is exceedingly appreciative of this work. As I have gone over the state from place to place in visiting medical societies, I have found the sentiment for this work very strong; however, I did find in a number of places where these courses were being given that there were not as many of the doctors attending as there should have been, but after all, a great majority of them did attend and were very fulsome in their praise of the work.

The courses that were given by Dr. McCord before Dr. Lapham came, were very fine. Of course, Dr. Lapham's lectures were very good indeed, and Dr. Strong's were very fine, very much needed, and were appreciated by all who heard them.

I hope we will continue this work in Mississippi right along, because we can have our post-graduate work go on in our own state in this way, when it would perhaps be impossible for many of our physicians to get work of this kind in any other manner.

DR. JOE E. GREEN (Laurel): I heartily agree with what our president, Dr. Harvey Garrison, has said regarding the great amount of good that is being done throughout the state because of the program initiated by the Commonwealth Fund, Tulane Postgraduate Medical School, and the Mississippi Medical Association, in bringing post-graduate courses on obstetrics and pediatrics in reach of every general practitioner. We are indeed glad to have Dr. Kostmayer, dean of Tulane Postgraduate School with us, and we all appreciate the fine cooperation received through him.

I personally like always to place a flower on the breast of the living, rather than large banks of flowers on the graves of the dead; and am frank in saying that if it had not been for the untiring, persistent work of our secretary, who was the go-between in the Commonwealth Fund and Tulane University, Mississippi would not be receiving this help today. However, I think that it is well fixed in the minds of Mississippi physicians that we have the best executive secretary in the United States; and our work in public health has grown so fast during the past few years, that we have reached the place where we expect these helps out of our friend "Felix."

It was my good fortune to be a member of the first class taking the four months postgraduate work at Tulane, and do not hesitate to say that every man with whom I've talked that has been fortunate to receive a scholarship, feels the same way about it.

Brethren, its a wonderful work. Keep it up.

THE CHAIRMAN: Permit me to say just this, it is my honest belief that this type of work carried on extensively and eternally, will do more to put down quackery and to prevent state medicine than any other activity we could engage in. We will become better doctors and render greater and larger service.

DR. KOSTMAYER (closing): I won't delay you very long. I just want to say this—there are three types of men, in my humble opinion, who cannot go away for long periods of post-graduate study, or who do not. The first type is the man who is not interested in going away, or who is not interested in perfecting his medical training or keeping up with it. The second is the man who cannot afford to go financially. The third is the man who can afford to go financially, but on whom his community depends entirely for medical service; in other words the man who when he goes away leaves one, two or three maternity cases in the offing, and nobody within 20 or 30 miles of him to take care of them. Knowing that there are a great many men who cannot go away and a great many who are disinterested, I, like your chairman and your president, and a good many others, am convinced that if this proposal succeeds, and I cannot concieve of its failing, this type of medical education can be taken to the man with very little interruption of his private practice.

Please permit me to thank you most cordially for the privilege of being here, not only at this meeting this morning, but at the very delightful meeting of yesterday.

THE CHAIRMAN: May I say this finally, that I know what all of you had in your minds and hearts day before yesterday at the House of Delegates meeting, when you voted the money to carry on this work for another year. You wanted to hear Dr. Kostmayer, and you were anxious to hear Dr. Lapham, but you did not want them to feel that their appearing here and talking about this work had anything to do with the appropriation being continued. You were ahead of them by about two days. The money was voted on the first day, and the last day they appear here before you. I am really glad you did this and I feel sure it is most pleasing to them.

The Diagnosis, Dietary Management and Medical Treatment of Gastric and Duodenal Ulcers by the General Practitioner

SEALE HARRIS, M.D. and
SEALE HARRIS, JR., M.D.
BIRMINGHAM, ALABAMA

When Dr. Joe Green, the chairman of the Section on Medicine of the Mississippi State Medical Association invited us to attend this meeting he said that there is need for simplified methods in diagnosing, dieting and treating ulcers of thhe stomach and duodenum; and he complimented and honored us by delegating the congenial task of writing a paper for the general practitioner on the subject of peptic ulcer. While realizing our limitations we are glad to do our best to simplify methods in diagnosing and treating peptic ulcer which may be utilized by the general practitioner.

The general practitioner may, and he should diagnose at least 90 per cent of cases of peptic ulcer without the aid of a laboratory or x-ray if he will take the time to make a careful study of the present complaints and the previous history of patients who apply to him for the treatment of what they usually call "indigestion." Not only should he make the diagnosis of peptic ulcer at least five or ten years before the disease has been recognized in the past, but at a time when simple dietary and medical management will cure a large proportion of cases.

In making the diagnosis of peptic ulcer from the anamnesis four cardinal points should be remembered:

1. Hunger discomfort and food relief at about the same hours each day.
2. Periodicity; sometimes seasonal recurrence of the symptoms.
3. A tender or sensitive spot in the abdomen, usually above and to the right of the umbilicus. The ulcer patient in many cases will place one finger over the area of the pain or burning in his abdomen.
4. Peptic ulcer is a very chronic disease, patients often giving a history of symptoms at varying intervals of from 5 to 40 years.

Early Ulcer Symptoms. If one would make an early diagnosis of ulcer of the stomach or duodenum he must forget the text book picture of pain, vomiting and hemorrhage; because in the vast majority of cases none of those symptoms, except dull pain, occur until late in the course of the disease.

The symptoms in the early years of gastric and duodenal ulcers, while variable, present a fairly constant syndrome. The patient usually complains of vague discomfort, or a burning sensation in the epigastrium, or near the umbilicus—or even in the lower right quadrant of the abdomen if there is gastroptosis—which begins in from thirty minutes to one or two hours after eating and lasts for two or three hours. When the stomach is empty there is a gnawing, uncomfortable sensation which the patient may describe as a "weak" or "gone" feeling. The patient usually will mention that he gets relief from the hunger discomfort by taking food, or by the use of bicarbonate of soda or other alkalies. Sometimes early in the course of ulcer, but more frequently not until it has existed for a number of years, there may be the "hunger" pains which are considered pathognomonic of ulcer.

The discomfort, or burning, or pain is increased after heavy meals, and after eating coarse foods, like corn, the crusts of bread, the seed of berries, skins of fruits, nuts, and uncooked vegetables.

Periodicity of Symptoms. If the ulcer patient is questioned carefully he will give a history of having had similar attacks of gastric distress at about the same hour of the day and lasting for weeks, or months, or longer, and followed by, and alternating with, periods of euphoria when he can eat anything without discomfort. Periodicity of symptoms is important in making a diagnosis of peptic ulcer, but the patient usually will not volunteer this information because he goes to the doctor for the relief of his present symptoms.

Localized Abdominal Tenderness. Often the patient will place one finger on the spot where he suffers most; and palpation usually, not always, elicits localized tenderness. Tenderness in ulcer is usually near, above and to the right of the umbilicus but sometimes it is high enough in the upper right quadrant of the abdomen to make it difficult to decide whether or not the tenderness is over the duodenum or gall bladder.

Age Incidence in Peptic Ulcer. Contrary to the general opinion peptic ulcer, a term that includes both gastric and duodenal ulcers, is a disease beginning in early life; and not in the fourth or fifth decades of life, when cicatricial and other pathological changes have taken place in the ulcer, and the functions of the stomach have become so impaired, that the complete cure of the ulcer is difficult. In the advanced cases a cure may be impossible without an operation.

A recent case of duodenal ulcer in a child six years of age, referred to us by a Birmingham pediatrician, in which a severe hemorrhage was the apparent onset, caused us to study the literature of peptic ulcer in children. Arthur Hurst, of London, states that "ulcers of the stomach and duodenum in new born babies and in infants under a year old are not very rare." He cites Theile as having collected 204 cases of peptic ulcer in infants; 42 per cent were gastric and 58 per cent were duodenal. Except for 64 cases of melena neonatorum caused by peptic ulcer, the majority occurred between the ages of six weeks and six months. Rogers reported two fatal cases of duodenal ulcer in two-month-old infants, in which autopsies proved the diagnosis. Holt found 74 duodenal ulcers in 1800 autopsies on infants.

Ulcers, in infants and young children, are acute and present few symptoms. Hematemesis and melena are findings which may suggest the presence of ulcer in an infant or young child, but the diagnosis is usually made at autopsy. Our case, however, a sixteen-year-old girl, was cured clinically, with no recurrence of symptoms in six months.

There is some question as to whether or not acute ulcers of the stomach and duodenum that occur in childhood become chronic; but we have had many patients with proved ulcer who said that they had had the same symptoms at varying intervals as far back as they could remember. Certainly many persons develop ulcer about the age of adolescence and complain of periodic attacks of indigestion for many years before they develop positive evidences of ulcer, and before a diagnosis of ulcer is considered.

Eructations. Sour eructations in from one-half to two or three hours after eating is a frequent symptom of ulcer. Usually for the first few years only an acid fluid is brought up, but often food is also eructated. Some patients will eructate, in mouthfuls, almost the entire meal before relief is obtained.

Gaseous eructations are sometimes the chief symptoms of which the ulcer patient complains and often the feeling of pressure, or even pain, is relieved by belching, or by the relaxation of the pylorospasm and the passage of gas in the intestines. Gaseous distention of the abdomen from faulty digestion of sweets and starches is often a distressing complaint of the ulcer patient.

Pain. While we would stress the fact that as a rule pain is not an early symptom, in a small proportion of cases it is the first and most insistent complaint of the ulcer patient. It comes on in from one-half to two or three hours after eating; usually early in gastric ulcer and several hours after eating in duodenal ulcer. We admit that it is often impossible to make a differential diagnosis between duodenal and gastric ulcer without x-ray studies; but it does not make any difference, insofar as medical treatment is concerned, whether the ulcer is in the stomach or duodenum.

The pain in ulcer usually lasts for two or three hours and is relieved by eating or when the contents of the stomach have passed into the intestines. In other cases the pain persists until vomiting is induced by the patient. Sometimes the alkalies will relieve the pain, as will also olive oil. The pain is usually relieved by taking food. Nocturnal epigastric pains, particularly in the early morning hours, are frequent in duodenal ulcer.

The patient usually describes the pain of ulcer as "burning" or "grinding," but others complain of a "dull, aching" pain. In rare cases when associated with pylorospasm the pain from ulcer may be intense and paroxysmal in character.

Nausea and Vomiting. Nausea is not ordinarily an early symptom of ulcer, but it occurs in many cases associated with epigastric discomfort in from a few minutes to several hours after eating and is relieved when the acid chyme passes into the intestines. The nausea associated with the burning pain which persists until the patient has emptied the stomach by induced vomiting is a prominent late symptom of ulcer, usually not present until the ulcer has existed for a number of years. In the old cases with organic pyloric stenosis, and sometimes from pylorospasm, the patient vomits profusely, often bringing up food at night, or early in the morning, that was eaten at the noon meal. Sometimes the patient cannot sleep until he has vomited all food from his stomach.

Nervous Symptoms. The great majority of ulcer patients have pronounced nervous symptoms so that we view the sufferer from "nervous indigestion" as one who may have an ulcer. This observation, made 30 years ago and mentioned in a paper read before the Alabama State Medical Association in 1912, concurs with the opinion of Kauffman who, in a paper before the American Gastro-Enterological Association in 1919, called attention to the frequency of ulcer in neurasthenics, particularly those who are in a state of chronic fatigue from overwork or worry.

The nervous symptoms of ulcer are not characteristic but vertigo, headaches, irritability and chronic fatigue have been observed and have been relieved by the treatment of ulcer. The type of insomnia in which the patient awakens with a vague discomfort or actual pain in the abdomen about 2 or 3 o'clock in the morning and gets back to sleep after taking food, or soda, or often after vomiting, is fairly characteristic of duodenal ulcer, though it is sometimes seen in hyperinsulinism and in neurotics who have no ulcer.

Hemorrhage. Hematemesis occurs in about 10 per cent of cases of gastric and duodenal ulcers and usually it is one of the late manifestations; but in some cases, gastric hemorrhage may be the first and only evidence of a peptic ulcer. The mere vomiting of blood does not make a diagnosis of peptic ulcer. Cirrhosis of the liver with ruptured esophageal veins causes hematemesis more frequently than ulcers of the stomach or duodenum.

The hemorrhage in ulcer is usually large and occurs only once, or at long intervals when it recurs. Occasionally hemorrhages are frequent. In the great majority of hemorrhages in ulcer, recovery takes place; while death is more frequent in hematemesis from cirrhosis.

Patients frequently will give a history of vomiting blood when upon close questioning it will be found that it follows severe retching from other causes than ulcer. For instance, in the continued vomiting of sea sickness, it is not infrequent that an ounce or more of blood is brought up when the victim had no previous or subsequent digestive disorder.

In many cases of duodenal hemorrhage there is no hematemesis. The diagnosis of hemorrhage may be made from the collapse, with rapid pulse, air hunger and other symptoms of internal hemorrhage without vomiting and before blood is passed per rectum.

While in the majority of cases of ulcer, both of the stomach and duodenum, there is occult blood in the feces, in our experience the melena as described in the textbooks as a manifestation has been infrequent.

Perforation. Perforation is usually a late complication of ulcer. It is more apt to occur in cases that have had hemorrhage, no doubt, due to the fact that in both conditions the ulceration is deep, extending to, and often through, the serosa of the stomach. Perforation, particularly of the upper posterior portion of the duodenum or pylorus with spontaneous closure of the opening by adhesions to surrounding structures, occurs more frequently in ulcer than is generally supposed. In such cases the pain and shock following the perforation are not so severe or pronounced as when the opening is through the lower border with the gravitation of the stomach contents into the general peritoneal cavity.

Perforation with fatal termination may be the first symptom of an ulcer that has existed for years. Many cases of so-called "ptomaine poisoning" are in reality perforating gastric or duodenal ulcers. Emergency hospitals report that many cases of perforation of the stomach or duodenum are brought to the operating table though they have had no previous symptoms of ulcer.

Examination of Stomach Contents. We believe that in the early stages of gastric ulcer, except those of the arterio-sclerotic type which are often associated with chronic gastritis, there is hyperchlorhydria and that the hypersecretion lasts for many years. We, however, cannot agree with Lord Moynihan who said that "hyperchlorhydria means ulcer;" but it has been so constantly found in the ulcer cases that we have seen in the first few years of their course that we regard an excess of hydrochloric acid in the stomach contents as of diagnostic value.

The ulcer cases found with low degree of hydrochloric acid have been of long standing and in which there was dilatation of the stomach from organic stenosis of the pylorus with subsequent retention of food in the stomach, resulting in a chronic gastritis in addition to the ulcer.

Occult Blood in Feces. One of the most important tests for gastric and duodenal ulcers is that for occult blood in the feces. It is not constantly present in all ulcers, but is found in the majority of cases. The routine examination of the feces for occult blood in patients suffering from digestive disorders sometimes will reveal blood which can be accounted for in no other way than by ulcer, though the patient has none of the classified symptoms. In examining feces for occult blood it is important for the patient to have been on a meat free diet for three or four days. Hemorrhoids, inflammation or ulceration of the colon and small intestines and intestinal parasites must be ruled out to make the occult blood test of value in the diagnosis of ulcer.

Therapeutic Test. The average patient with uncomplicated peptic ulcer will be relieved of symptoms in a very few days if placed on a half glass of milk every one or two hours from the time of awakening in the morning until bedtime, and if awake at night; and if the alkalies (calcium carbonate, bismuth subcarbonate, or sodium carbonate) are given one-half hour after each feeding. Small doses of the bromides (19 grains) and the tincture of belladonna (15 to 25 drops) may be necessary if there is pain. In case of suspected ulcer the above regimen, or the ambulatory diet, or the modified Lenharz diet as outlined later in this paper, may be tried with the ulcer patient. If he gets relief from symptoms on an ulcer regimen, the diet advised for the ambulatory or bed ulcer patient should be continued. If the patient with suspected ulcer fails to improve on one of the suggested regimens, there are either complications, or the symptoms are due to some other cause than ulcer, such as carcinoma of the stomach, gall bladder or pancreatic disease, or other extragastric conditions that cause abdominal symptoms.

X-Ray Examinations.. While it is true that gastric and duodenal ulcers may be diagnosed by careful and accurate history taking in at least 90 per cent of cases, it is desirable with any patient to clinch the diagnosis by x-ray examinations, particularly if there is any doubt as to the case being one of uncomplicated ulcer. The x-ray, however, is not infallible, because in 5 or 10 per cent of cases in which there is every reason to believe that the patient has an ulcer, the roentgenological examination is negative. Positive findings after repeated x-ray examinations, such as filling defects in the pylorus or duodenum, or crater like areas in gastric ulcer, with a hypertonic stomach, and perhaps 6 hour retention of the barium meal in the stomach, in probably 95 per cent of cases makes the diagnosis of ulcer a certainty.

The value of an x-ray in the diagnosis of ulcer depends much upon the skill and experience of the roentgenologist. The amateur roentgenologist, with inadequate x-ray equipment, will make as many mistakes in diagnosis, as will the amateur, or untrained, surgeon in performing exploratory laparotomies.

The x-ray should not be relied upon altogether in making the diagnosis of gastric and duodenal ulcers. Every other confirmatory evidence of ulcer such as laboratory tests, the anamnesis and physical examinations, should be considered before one can say with absolute certainty, that he is dealing with a peptic ulcer or other abdominal conditions that simulate ulcer. The diagnosis of peptic ulcer is sometimes so difficult in a small proportion of cases that even the most skilled and experienced clinician cannot say with certainty that he is, or is not, dealing with a gastric or duodenal ulcer.

Surgery in the Diagnosis of Ulcer. In very rare occasions surgery may be necessary for a positive diagnosis of gastric and duodenal ulcers. The frequent incidence of gall stones and appendicitis with gastric or duodenal ulcer make it important to make an exploratory operation when the diagnosis is in doubt, and when after a thorough ulced treatment the symptoms are not relieved, or when there are recurrences of the symptoms in spite of the treatment.

The diagnosis of ulcer of the stomach and duodenum is often delayed for years by the McBurney or "button hole" incision for the syndrome of symptoms usually diagnosed as chronic appendicitis. It is almost the rule for chronic ulcer patients to give a history of operation for chronic appendicitis, without relief, or only temporary amelioration of the symptoms for which the operation was performed. With an experience covering thousands of patients who have had their appendices removed and who later had digestive symptoms, we are convinced that the surgeon is remiss in his duty when he removes an appendix in which there are no demonstrable macroscopic lesions, without extending the incision and exploring the gallbladder, stomach, pancreas and kidneys.

While in our opinion the serious operation for gastric or duodenal ulcer should in no case be performed until the patient has had a month's dietetic and medical treatment in a hospital, without relief of symptoms, we believe that the person of cancer age should have the benefit of an early exploration of the abdomen, if medical treatment fails to give complete relief in a few days. We also believe that if there is a recurrence of symptoms even after months of euphoria following rest and a modified Lenharz treatment, an exploratory operation should be performed. In many such cases the ulcer will have healed, but there is a recurring appendicitis or there are gall stones, or gallbladder, pancreatic or even pelvic conditions that were associated with the ulcer. It is not possible in every case to diagnose ulcer without an operation, though in the large majority of cases an accurate diagnosis can be made without resorting to surgery. In a large number of cases in which we have advised operation for relief of ulcer of the stomach we can recall only a few in which the ulcer was not found to be present.

DIETARY AND MEDICAL MANAGEMENT OF PEPTIC ULCER

In outlining the dietary and medical treatment of peptic ulcer no attempt will be made to review the literature on the many methods of treatment that have been followed and that are now used by various clinicians. Indeed, medical literature is so plethoric with articles on the treatment of gastric and duodenal ulcers that even a brief mention of the more recently proposed methods would consume more than the time allotted us. Only the methods which we have used with satisfactory results, and for which little claim of originality is made, will be discussed.

Ulcer "Shots." In the last few years physicians have been besieged with propaganda regarding new and high priced—so-called specific—drugs in the treatment of peptic ulcer. Every physician, before using them, should read an article entitled "Dietetic, Parenteral and Surgical Treatment in Peptic Ulcer,' by David J. Sandweis, of Detroit, and published in the Journal of the American Medical Association, February 27, 1937. Sandweis and his associates made comparative studies on 291 patients, 51 of whom were treated surgically; 93, diet-alkali hospital; 260, diet-alkali ambulatory; 44, vaccine; 43, larostodin; 30, synodol; and 22 were given distilled water parenterally. He found that the parenteral drugs, i.e., vaccines, larostodin, and synodol and distilled water gave practically identical results. In 44 cases treated with vaccine 66 per cent became symptom free; in 43 cases treated with larostodin (histidine) 54 per cent, in 38 cases treated with synodol, 58 per cent became symptom free; while in 22 cases treated with distilled water 59 per cent became symptom free. Sandweis concludes:

"In my opinion it is not the histidine in larostidin or the emetine in synodol or the dead bacteria in vaccines that produce remissions in these cases. Approximately only half become symptom free. Also, injections of distilled water produced similar results. Remissions produced may be explained as psychic effects, added confidence in "something new" instead of the "same diet and powders" (so well known to ulcer patients), greater encouragement due to more frequent visits to physician or nurse as well as persistence in treatment.

"The parenteral method is not indicated in the routine treatment of peptic ulcer. It may be used only in those patients not responding to the diet-alkali regimen and only in association with but not in the place of the usual bland diet. There is only slight difference between the results obtained by the injections of the various products mentioned. If one product fails to produce a remission, another may be tried. At present there is no parenteral product specific for peptic ulcer."

In discussing Sandweis' paper, Andresen, of Brooklyn, expressed what is in the minds of gastro-enterologists who have had a large experience in treating peptic ulcer, and who have seen the failure of many proprietary medicines heralded as specific drugs for ulcer since the fine art of pharmacy has become so highly commercialized. Andresen said:

"It is time that something should be done to check the exploitation of the doctor and his patients by pharmaceutical houses advocating parenteral injections of various improved medicaments, intragastric and intraduodenal instillations of modified foods, or of alkalies, or alkaline earths, and the oral administration of noxious substances or freak combinations."

Flood and Mullins (American Journal of Digestive Diseases and Nutrition, 6:303-305, July, 1936) report a study of 18 cases of ulcer; 12 were given injections of 5 c.c. of normal salt solution, and 6 were given histidine. Eight of 12 receiving salt solution were free from pain, while 4 of 6 patients receiving "shots" of water or any other inert substance, were relieved. If a physician must give "shots" to hold his ulcer patient, sterilized water is just as effective as the expensive and commercialized medicaments advertised for parenteral use in the treatment of peptic ulcer. He at least is not deceiving himself when he uses injections of distilled water.

Ambulatory Treatment of Peptic Ulcer Patients

While it is best for any ulcer patient to have three weeks rest in bed, preferably in a hospital in which dietary methods can be carried out properly, many patients cannot afford to stop work; and the next best thing, i.e., the ambulatory treatment, may be tried. Undoubtedly many ulcer cases may be cured while the patient continues the duties of his vocation; and if the symptoms are mild and have existed for only a short time, the ambulatory treatment may be the method of choice. However, in the old neglected cases, in which symptoms are severe, such as intense pain, nausea and vomiting, or in which there have been complications, as hemorrhage or perforation, there is little hope of permanent results from the ambulatory treatment of gastric and duodenal ulcers.

There can be no one diet that conforms to the nutritional needs of all ambulatory ulcer patients any more than there should be a routine diet for the hospitalized ulcer patient. The laborer with a gastric or duodenal ulcer who performs hard manual labor must have sufficient food to carry on his daily duties while undergoing ambulatory treatment; so that he should have more food than the "white collar" ulcer patient who lives the sedentary life of an office worker.

In young adults in which ulcer symptoms have existed for only a few months or even a few years, in carrying out the ambulatory treatment it may be sufficient to allow the patient three small meals a day with a glass of milk three hours after meals, and, if awake, at night. Coarse vegetables, tough meats and irritating condiments should be interdicted.

The following diet has been used by us as the basis for the dietary management of the ambulatory ulcer patient; and it may be added to, or substracted from, to suit the nutritional needs and the food likes and dislikes of the patient under treatment:

First Week: Glass of milk every 2 or 3 hours from arising until bedtime and at night if awake.

Strained orange juice (medium sized orange) every 3 hours, taken either with milk or about one-half to one hour before it is taken.

There is no objection to the orange juice being given with the milk. In fact, there is evidence to show that the addition of orange juice to milk makes the curds more flocculent and, therefore, adds to the digestibility of milk.

Strained oatmeal or other cereal breakfast food—except bran—may be given for breakfast and supper, and dry toast and butter at the noon meal may be added as the patient improves in from four days to a week.

Second Week: Add to the first week diet an egg for breakfast; scraped beef or minced chicken or tender meat of any kind may be added at the end of the first week and continued for about a week. The milk should be continued every 2 or 3 hours between meals.

After two weeks the ambulatory patient should be given a diet somewhat like that of the ulcer patient in bed for the third and fourth weeks. At the end of the fourth week the diet advised for the convalescent ulcer patient after six weeks' treatment often gives satisfactory results in relieving the symptoms; and certainly many ulcer patients have reported permanent cures on about this diet. This rather liberal diet should be kept up for six months, varying it to keep the patient's weight at the average normal for his age and height.

Simplified Diet for Medical Ulcer Bed Patient

It is not possible to prepare a diet suitable for all ulcer patients, but it is practicable to construct daily menus for the average case, which may be modified, if necessary, to meet the varying nutritional needs of the individual under treatment. We use the following simplified diet for the average medical ulcer patient who is under treatment in bed in a hospital or at home. It is so constructed that it may be easily changed, increasing or decreasing the amounts of carbohydrates, proteins and fats to meet the estimated requirements in any given case. The general practitioner may use this diet in any home.

Diet for Six Days

First day: Every hour from 7:00 a. m. to 7:00 p. m., one-half ounce of a mixture of one-third cream and two thirds milk (thirteen feedings); and at night if the patient is awake.

One-half ounce strained orange juice after milk at 7:00 a. m., 1:00 p. m. and 7:00 p. m.

Second day: Every hour from 7:00 a. m. to 7:00 p. m., one ounce of a mixture of one-third cream and two-thirds milk.

One ounce strained orange juice after milk at 7:00 a. m., 1:00 p. m., and 7:00 p. m.

Third day: Every hour from 7:00 a. m. to 7:00 p. m. (inclusive), one and one-half ounces of a mixture of one-third and two-thirds milk.

One and one-half ounces strained orange

juice after milk at 7:00 a. m., 1:00 p. m. and 7:00 p. m.

Fifth day: Every hour from 7 a. m. to 7:00 p. m. (inclusive), two ounces of a mixture of one-third cream and two-thirds milk.

Two ounces strained orange juice after milk at 7:00 a. m., 1:00 p. m. and 7:00 p. m. milk.

Sixth day: Every hour from 7:00 a. m. to 7:00 p. m. (inclusive), three ounces of a mixture of one-third cream and two-thirds milk.

Two ounces strained orange juice after milk at 7:00 a. m., 1:00 p. m. and 7:00 p. m. If the ulcer patient is awake at night the feedings should be continued as during the day.

Seventh to Tenth Days:

Breakfast—7:00 a. m.: Three ounces strained orange juice, six tablespoonfuls strained oatmeal or other smooth cereal, with two ounces cream, no sugar.

One slice dry toast of whole wheat bread.

One soft boiled egg. One pat butter.

Three ounces milk.

10:00 and 11:00 a. m.: One ounce of cream and two ounces of milk.

12:00 m., Dinner: Three ounces strained tomato juice.

One tablespoonful scraped beef, slightly broiled.

One slice whole wheat bread, toasted. One pat butter.

Three ounces milk.

2:00, 3:00, 4:00 and 5:00 p. m.: One ounce of cream and one ounce of milk.

6:00 p. m. Supper: Three ounces strained orange juice.

Six tablespoonfuls scraped beef, slightly broiled.

One slice whole wheat bread, toasted. One pat butter.

Three ounces milk.

Three ounces of milk every 2 or 3 hours if awake at night.

Eleventh to Fourteenth Days:

7:00 a. m. Breakfast: Three ounces strained orange juice.

Six tablespoonfuls strained oatmeal or other smooth cereal.

Three ounces cream.

One soft boiled egg.

One slice whole wheat bread, toasted. One pat butter.

Three ounces milk.

9:00 and 11:00 a. m. Three ounces milk and one ounce cream.

12:00—Dinner: Three ounces strained tomato juice.

Two large tablespoonfuls scraped beef or minced breast of chicken.

One slice whole wheat bread with dry toast. One pat butter.

Two tablespoonfuls ice cream.

3:00 and 5:00 p. m.: Three ounces milk and one ounce cream.

6:00 p. m. Supper: Three ounces orange juice strained.

One soft boiled egg.

One slice whole wheat bread toasted. One pat butter.

Three ounces milk and two ounces cream.

9:00 p. m.: Three ounces milk and two ounces cream.

Fifteenth to Twenty-First Day:

7:00 a. m. Breakfast: Three ounces strained orange juice or strained grapefruit juice.

Six tablespoonfuls strained oatmeal, or cream of wheat or other smooth cereal, no sugar. Three ounces cream.

One poached or soft boiled egg.

One slice toast, whole wheat bread, and two pats of butter.

Three ounces cream.

10:00 a. m. : Five ounces milk (half cream).

12:00—Dinner: Four ounces strained tomato juice or strained vegetable soup.

Four rounded tablespoonfuls scraped beef or minced breast of chicken.

Four rounded tablespoonfuls tender green vegetables, as turnip greens, spinach or string beans (mashed through a sieve).

One slice whole wheat bread toast; two pats butter.

One rounded tablespoonful ice cream; cup custard, boiled custard or gelatine cream.

3:00 p. m.: Five ounces milk (half cream).

6:00 p. m. Supper: Four ounces strained tomato juice, clear broth or tomato broth, or strained vegetable soup.

Four to six tablespoonfuls turnip greens, spinach or string beans or carrots, mashed through a sieve.

One slice whole wheat bread toast; two pats butter.

Four ounces milk.

Four ounces strained orange juice.

9:00 p. m.: Five ounces milk (half cream).

Fourth, Fifth and Sixth Weeks

8 a. m. Breakfast: Three ounces strained orange juice. Six tablespoonfuls strained oatmeal, or other cereal (no bran); three ounces cream—no sugar. One egg, soft boiled, poached or scrambled. One slice dry toast, whole wheat bread; two pats butter.

10 a. m.: Five ounces of milk (half cream).

1 p. m. Dinner: 4 ounces strained tomato juice, clear broth or tomato broth, or strained vegetable soup. 4 to 6 rounded tablespoonfuls scraped beef or minced chicken or lamb. 4 to 6 tablespoonfuls turnip greens, spinach or string beans, or carrots, mashed through sieve. One slice dry toast, whole wheat bread; two pats butter. 4 tablespoonfuls ice cream, boiled custard or gelatine.

4 p. m.: 5 ounces milk (half cream).

6 p. m. Supper: 4 ounces thick puree of green or dried peas or butter beans. 4 to 6 tablespoonfuls turnip greens, spinach or string beans or carrots, mashed through a sieve. One slice whole wheat bread toast; two pats butter. 4 ounces milk. 4 ounces strained orange juice.

9 p. m.: 5 ounces milk (half cream).

DIET AFTER SIX WEEKS

After six weeks the ulcer diet may be increased or decreased to keep the patient at his normal weight and in a perfect state of nutrition. While undergoing treatment the ulcer patient should be taught the simple facts regarding the vitamin content of foods and the importance of continuing to eat well balanced diet for the rest of his life. This does not mean food restriction, or what not to eat, so much as it does the necessity for taking a sufficient amount of food to keep up strength and endurance, as well as to eat enough of the protective foods to prevent a recurrence of the ulcer.

Especially should he be taught the dictum of McCollum's perfect nutritional day, i.e., that each normal person should drink from a pint to a quart of milk a day, and eat one raw fruit, one raw vegetable and two cooked leafy green vegetables daily. In addition to that, he should eat a reasonable amount of meat once a day, one piece of bread, preferably made of whole wheat flour, or country ground corn meal, with liberal quantities of butter, and then a dessert of fresh fruits, cooked or uncooked, ice cream, sherbet, gelatine or other light sugar dessert at one meal. This diet gives the patient with healed ulcer a wide variety of the most palatable foods known to man. He soon realizes that on such a diet he receives the greatest enjoyment from eating; he is comfortable and efficient, and he experiences the joy of living more than he did when he ate without a thought of whether or not the quality and quantity of foods he consumed met his daily nutritional needs.

Diet

Breakfast:

One fruit: Orange juice, orange or ½ grapefruit or ½ cantaloup.

One cereal: Small portion of thoroughly cooked oatmeal, or other cereal, no bran, or one shredded wheat biscuit with one-half glass cream, no sugar.

Eggs: One egg poached or soft boiled, or soft scrambled.

Bread: One slice whole wheat bread toast, two pats butter; two tablespoonfuls honey.

Milk or cocoa: One glass milk or cup of hot cocoa.

Three Hours After Breakfast:

One glass of milk, one-third cream.

Dinner:

Soup: Strained chicken, celery, vegetable, barley soup, or strained tomato juice.

Tender Meat (small portion): Broiled, or baked, not fried, small portion of chicken, turkey, mutton, roast beef, bacon, thinly sliced boiled ham or fish.

Tender Green and Yellow Vegetables: (One variety of each). Large serving spinach, turnip greens, tender string beans, cooked without much grease, carrots, squash, or young turnips. Butter or mayonnaise or olive oil and lemon juice may be used freely on vegetable after they have been cooked.

Bread: One slice whole wheat bread or dry toast, or small piece of country ground corn meal bread, or one small corn muffin; two or three pats of butter.

Milk: One glass of buttermilk (one-third cream).

Dessert: Soft part of baked apple, thoroughly ripe banana or other fruit with cream, no sugar. Ice cream or gelatine, or sherbet, twice a week.

Three Hours After Dinner:

One glass milk.

Supper:

Pure (thick strained soup) of peas or beans, or oyster stew, no oysters.

Raw Vegetable Salad: Crisp lettuce (trim out tough stems); peeled tomatoes (cut tough centers out); crisp cold slaw made of leafy part of tender cabbage (cut out the stems of the leaves). Olive oil and lemon juice or apple vinegar or mayonnaise dressing may be used freely.

Cheese: Four tablespoonfuls home made or dairy made cottage cheese, or cream cheese, or the equivalent of two tablespoonfuls of Swiss, Philadelphia or yellow American cheese, never cooked.

Bread: One slice whole wheat bread or dry toast, four to six toasted crackers.

Two or three pats butter.

Milk: One glass sweet milk or buttermilk (one-third cream).

Dessert: Strained orange juice, soft part baked apple, or very ripe banana and cream without sugar, or gelatine, or egg custard.

DIETARY MANAGEMENT OF PEPTIC ULULCER PATIENTS BEFORE AND AFTER OPERATION

The problem of dieting the ulcer patient before and after operation is entirely different from that involved in the effort to heal gastric and duodenal ulcers medically; and the recognition of the pathologic physiology in the surgical patient, while applying the accepted principles of nutrition adapted to the needs of the individual under treatment, will reduce very materially the operative mortality of ulcer. Likewise, rational postoperative dietary management will prevent many recurrences of the original ulcer as well as safeguard against the dreaded jejunal or gastrojejunal ulcers which follow only too frequently after gastro-enterostomies.

The failure to get the ulcer patient in the best possible state of nutrition before operation and haphazard postoperative dieting account for the deaths from acidosis, shock and myocardial weakness of many asthenic individuals whose resistance has been lowered by years of malnutrition from pyloric stenosis with resulting gastrectasis. It also is true that the infections causing postoperative pneumonia, pleurisy, peritonitis and other complications following gastro-enterostomy and gastric resection may be prevented in many cases if the patient is properly prepared for the operation by a few days of dieting suited to his particular needs. Therefore, the surgeon should not consider a gastric operation as merely a mechanical procedure, but should recognize the nutritional problems involved; and when possible he should associate with him in the management of his ulcer patient, a physician who has had proper training and ample experience in dealing with such cases. It is still better for the surgical ulcer patient to be under the care of the physician and let him call in the surgeon to perform the operation when the patient has been properly prepared.

Simple Inexpensive Pharmacopoea Drugs. Lenharz advised bismuth subnitrate in drachm doses, suspended in water, one hour before beginning the morning food. There is some defference of opinion as to how the bismuth acts and as to whether or not it has any effect. It has been shown by the x-rays that in some cases—not all, by any means —bismuth will remain in the crater of the ulcer after it has passed out of the other parts of the stomach. It may, therefore, have some effect in protecting the ulcer. Aaron thinks that the bismuth subnitrate is broken down with the liberation of nascent nitric acid which acts as the antiseptic stimulant and astringent to the ulcer, thus promoting healing.

One observer has shown that bismuth in any form causes the secretion and pouring out of gastric mucus, which Conheim believes to be deficient in gastric ulcer, thus protecting the ulcer from the irritating effects of the hydrochloric acid which is usually present in excess. At any rate, bismuth subnitrate seems to be helpful. It is given in drachm doses on an empty stomach in the morning; and the subcarbonate in 30 grain doses, alternating with one-half to one drachm doses of soda between each feeding, depending on the degree of hydrochloric acidity as found by repeated examination of the stomach after test meals.

Sippy used the calcium carbonate in gram (15 grains) doses, which in household measure amounts to about a level teaspoonful, one-half hour after taking food. In our experience the calcium carbonate is quite as effective as bismuth subcarbonate, and it is less expensive, a consideration of importance to many. In fact, in recent years, we have used the calcium carbonate instead of the bismuth subcarbonate almost altogether.

Care should be taken not to give an excess of the alkalies in the old or neglected ulcer cases with gastrectasis because with low gastric acidity there is real danger of alkalosis particularly if too much sodium bicarbonate is given. An excess of alkalies in an old neglected case of ulcer with subacidity brought on an attack of unconsciousness in one of our patients, which was proven to be due to alkalosis. The patient responded to intravenous dextrose therapy, but this near accident taught us the dangers of over-alkalinization in old ulcer patients. Crohn, Hardt and Rivers have called attention to the dangers from alkalosis and the symptoms produced by large doses of sodium bicarbonate in ulcer patients.

If there is constipation, the heavy oxide of magnesia is given in 10- to 20-grain doses with the bismuth or sodium bicarbonate four times a day; or with the bismuth subnitrate, or subgallate, one-half hour before breakfast.

In some cases, particularly the nervous patient, strontium bromide, 10 grains in mint water, two or three times a day, is helpful. If there is hyperchlorhydria or tendency to pylorospasm, the tincture of belladonna in doses of 10 to 25 drops is given either with, or without the bromides, three times a day before eating.

In cases where there is retention of food, lavage with a solution of sodium bicarbonate, four drachms, to two quarts of water, is given at 9:00 p. m., and if there is excessive secretion, as in gastro-succorrhoea, which is sometimes associated with ulcer, lavage is given in the early morning one-half hour before beginning the nourishment.

Teaching the Convalescent Ulcer Patient How to Live.—In treating gastric and duodenal ulcers either medically or surgically, it should be remembered that it is a secondary condition with which we are dealing, and one which is likely to return unless the underlying causes are sought for and removed. The streptococcus viridans, or other pathogenic micro-organisms, from focal infections in the teeth, tonsils, gallbladder, appendix, or in any part of the body may be the exciting cause; but a localized area in the stomach in a lowered state of vitality from some cause must provide the **locus minoris resistentiae.**

Careful questioning of ulcer patients will usually bring out a history of gross errors in diet or in habits of living which result in trauma of the gastric mucosa. These may be regarded as predisposing causes. They are the same as those we find in patients suffering from hyperchlorhydria, which is usually seen in ulcer, and which nearly always precedes it. They include rapid eating, insufficient mastication, overeating, the ingestion of coarse foods and hot drinks.

The particular errors in diet and living of the ulcer patient must be pointed out to him, and he must be taught how to live in order to prevent the recurrence of ulcer. One of the reasons why surgery so often fails in peptic ulcer is that the patient believes that the operation is all that is needed to restore him to complete health, and he goes back to the same method of living that brought on the ulcer in the beginning. The ulcer patient should be made to know that for a year or two, and probably for the rest of his life, whether he is treated medically, or by surgery, he must lead the simple hygienic life if he hopes for continued health.

Sir Berkley Moynihan, Tyrrell Gray, Eusterman and others stress the importance of tobacco as a predisposing cause of ulcer and in precipitating recurrences; and there can be no question but that the ulcer patient, whether he is an ambulatory or a bed patient, stands a better chance for immediate relief and permanent recovery if he gives up tobacco.

Russell Boles, of Philadelphia, in discussing Sandweis' paper read in the Section on Gastro-Enterology of the American Medical Association, in 1935 said:

> "I don't believe there is one of us who doesn't prohibit the use of tobacco in ulcer patients. Why is the use of tobacco harmful in ulcer? Is it because of the effect on secretion? Tobacco is a powerful vasoconstrictor and by prohibiting it, we probably allow a certain amount of normal vasodilatation to take place at the site of the ulcer."

The caffeine drinks, as coffee, tea and coca cola, which increase nervous irritability and, therefore, tend to produce pylorospasm and hypersecretion, should be eliminated. Likewise, alcohol in any form is harmful to the ulcer patient. Jackson reported that 14 of 17 patients whom he had operated upon for perforating ulcer had indulged in alcoholic excesses a few hours preceding the perforations.

It is important to stress the need of rest and serenity to the ulcer patient. Overwork, worry, grief, abnormal fear, may bring on a recurrence of ulcer symptoms.

We regard the ulcer patient as a teacher looks upon a pupil, i.e., one to be taught personal hygiene with particular reference to avoiding errors in diet; and the daily effort is made to instruct him how to live in order to enjoy health and efficiency. Psychotherapy, particularly the DuBois method of re-education, should be practiced in dealing with ulcer patients, because there is usually the psychasthenic element present. It is the careful attention to every detail that gives best results in the dietary and medical treatment of gastric and duodenal ulcers.

The great majority of properly treated ulcer patients, whether medical or surgical, may look forward to becoming more efficient and to enjoying life more than they ever had before, provided they follow the same rules of personal hygiene that every man in health should observe.

Looking To A Greater Public Health Program*

FELIX J. UNDERWOOD, State Health Officer
JACKSON, MISS.

As we look back to see what has been accomplished in only a short time in saving life and preventing disease in this country, we get a thrill of reassurance. Great has been our progress, yet so much more remains to be done!

A study has recently been made of the history of public health development in Mississippi, beginning in 1799. This was 138 years ago and nineteen years before Mississippi became a state. Little was known at that time about the manner in which disease is spread; vaccines and serums had not come into use; there was no health officer, and but one brief law relating to protection from disease. This act, passed by the legislative assembly of the territory of Mississippi on March 18, 1799, was entitled "A Lew Concerning Aliens and Contagious Diseases," and was designed "to prevent the admission within the territory of foreigners of infamous character . . . and to provide as far as possible against the fatal calamities of contagious diseases, which have so frequently almost desolated great towns and cities in the United States, and extended its baneful influence to the smaller settlements."

Acts of the assembly in 1803 and 1807 strengthened this law by providing a fine up to $2,000 and imprisonment for twelve months for "willfully and designedly" bringing into the territory "the small pox, or any variolus or infectious matter of the said disease for the purpose or with the design to spread the same by inoculation or otherwise." The following section of the act is of particular interest to the present generation, who can hardly conceive that at one time it was necessary to petition the governor if one wished to be vaccinated against smallpox:

"Whereas in certain cases, inoculation for the smallpox may not only be prudent, but a necessary measure for securing those who are, or may be unavoidably exposed to the danger of taking the disease in the natural way; and for this reason it is judged expedient to tolerate the same, under certain reasonable regulations and restrictions. It is provided therefore, that **if any person or persons who may wish to be inoculated, shall petition the Governor to that effect**, he may appoint him or them to a place within this territory, that will not endanger the health of citizens of the same where the petitioner or petitioners shall resort for the purpose of being inoculated. And should any master or mistress of a family think him or herself, his or her family in danger of catching the smallpox in the natural way, such person shall give like notice to the Governor; and if he shall deem it prudent and proper and not dangerous to the health and safety of the people of this territory for such person or family to be inoculated, he may admit the same or otherwise, as to him shall seem expedient."

There is no better way to measure future progress than by past accomplishments. The **History of Public Health in Mississippi From 1799 to 1937** is now in the hands of the printers and will soon be made available to you. Great care has been taken in its compilation, and it is expected to fill a long need and serve a useful purpose. By reading this history we gain a deeper sense of appreciation of our modern-day weapons against disease. At the same time we feel some justification in predicting future programs that will surpass anything yet accomplished. We are bound to move forward! The courage and bravery which characterized our forebears in these early efforts toward more healthful living present a real challenge to each of us, for they really laid the ground work for our present efficient program.

Public health work is one of the youngest branches of public service. Though nurtured through its infancy by the doctor, the bacteriologist, and the sanitary engineer, it is now growing into maturity with the aid of the social worker, the sociologist, the journalist, the psychologist, the advertising designer, and the radio expert. Consequently, there are numerous branches of learning, useful and necessary to the up-to-date health department worker, that are not generally recognized as technical knowledge pertaining to public health. Public health has come to be not merely a specialty of medicine but a branch of social science.

Medical science is an especially rapid marcher, and the public health worker who fails to keep step, who does not grow with and faster than the job, soon becomes a clog to himself and the department.

---

*President's address presented before the Mississippi Public Health Association, Jackson, Miss., December 9, 1937.

Meetings such as this can be very profitable to us. There is value in making friends among kindred workers and in visualizing their procedures.

In the intricate scheme of public health administration, there must be craftsmen of great variety and of varying degrees of skill. In addition, each employee must fit himself into the organization. No matter what his vocational status may be, he should share the common objective of the health department and understand its purpose.

The employee who simply hires out his energy to perform a humdrum task may be suited for industry but he certainly is out of place in a health department. Therefore, we should endeavor to create a proper appreciation of public health in the mind of every worker. There are few fields of work so rich in drama and adventure as public health, and it should not be difficult to infuse its spirit into those who are engaged in any phase to it.

I was deeply impressed with a recent article I read entitled **All Together,** by George Matthew Adams. Its lines would be applicable to any endeavor, but I like to think of it in connection with our public health organization:

"There are few, if any, lone successes," states Mr. Adams. "Every personal triumph is the result of some one else—pushing with us.

"Team work, organization, and everybody working together are what put things across, build enduring businesses, make mammoth enterprises, and give to society its social happiness.

"It is imperative that we work in harmony with other people if we wish to be successful. We must both pull and push together.

"No matter where you work, if you can't get in line and give the best that is in you, you should resign and go where you can. When you weaken an organized body, you weaken yourself.

"No 'star' in a football team is possible without every other man backing him to the limit, with faith and enthusiasm. The team wins!

"United power is the synonym for smoothness and achievement, no matter where it is applied. You feel that you have more power when others are pulling, or pushing, with you. Modern mass production is possible only through the conscientious efforts of EVERY worker.

"Never worry about getting your share of personal credit, when working out a problem with others. If you give all that is within you, in cooperation with your associates, there will be glory enough for all."

Nineteen thirty-eight is just around the corner. Let's try to make it a record year in health achievements for Mississippi! Each and every one of you have my very best wishes for a full measure of happiness and success in your undertakings.

Mississippi State Medical Association

Leon S. Lippincott, M.D., ...Editor
D. W. Jones, M.D., ...Associate Editor
G. S. Bryan, M.D., ...Associate Editor

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

EDITORIALS

FROM OUR PRESIDENT

On January 18, a meeting of all section chairmen of the program committee for the Mississippi State Medical Association was held in Jackson. Among those present were Dr. Joe Green, president-elect, Dr. T. M. Dye, secretary, and Dr. H. F. Garrison, general chairman for the Central Medical Society, for the entertainment of the State Association which will meet there April 19, 20, 21. The program for this meeting will soon be released. Outstanding men of the medical profession in this state, as well as some of the most prominent medical and surgical talent from other states, have been secured for this meeting. We are informed that the hotels of Jackson will take care of all who attend the meeting and, that members of the Association and their guests, especially the Auxiliary, will be given a royal welcome.

Last year we stressed the importance of membership in the Association, and, as a result of enthusiasm and interest, the membership for 1937 was the largest since 1930. I hope our vice-presidents and councilors are assisting the respective secretaries of their district and county societies in obtaining renewed memberships and in getting new ones. Pertaining to this subject, I wish to commend Dr. J. G. Gardner, of Columbia, Councilor of the seventh district, for his letter of December 27.

This letter was addressed to the members of the South Mississippi Medical Society who had failed to pay their dues for 1938, and cited many good reasons why all Mississippi doctors should join their associations,—county, district and state. Though members in any organization count for much, we cannot be content with names only. We need a greater attendance at the meetings of all our associations in order that the best interests of the profession may be attained. I look forward to a successful meeting in Jackson, made possible by a larger attendance.

Wesson, W. L. Little,
Feb. 1, 1938. President.

ANNUAL MEETING OF STATE ASSOCIATION

The Central Medical Society is actively preparing for the Annual Meeting in Jackson, April 19, 20, and 21. A recent announcement follows:

The Committee on Scientific Exhibits is very anxious for as many physicians, clinics, and hospitals as possible to have an exhibit at the meeting of the Mississippi State Medical Association, which meets in Jackson, April 19 to 21, 1938. A committee will judge the exhibits and a silver plaque will be presented to the best exhibitor.

Photographs of interesting x-ray plates or of patients, with short case histories, pathological specimens, series of cases showing operative technique, or any procedure which you have found beneficial in your practice are wanted. The above are a few suggestions; however, we will be glad to have any subject matter you may care to exhibit.

Do not delay in getting up the material for this exhibit. In order that we may arrange the space for the exhibit, all exhibits must be in not later than April 15, 1938.

Send your material to Dr. Robert B. McLean, 714 Lamar Building, Jackson.

Dr. Willis Walley, Dr. Robert B. McLean and Dr. Temple Ainsworth are co-chairmen.

A part of the entertaining activities will be:

1. A small bore rifle contest held, probably, on Tuesday and Wednesday afternoons. The contest will be conducted along the lines laid down by the N. R. A. and prizes awarded for the best marks. All members of the State Medical Association will be eligible to this rifle contest and need not hesitate to register for there will probably be no experts present. Any 22 rifle and any ammunitions selected by yourself will be admissible. A booth for registration will be maintained at the meeting headquarters through Tuesday and Wednesday mornings.—George Adkins, chairman.

2. A skeet and trap shooting contest will be held for the entertainment of all those present who care to participate. You will please register at the booth.—J. F. Armstrong, chairman.

3. Golf at the Country Club will be available to all. Please register and enter your handicap with the chairman.—J. W. Barksdale, chairman.

4. Fishing: Trout, bass, perch—fly, rod and reel, plug and bait fishing available in stocked preserves for your sport. Register and avail yourself of the fun.—R. W. Hall and N. F. Kendall, co-chairmen.

A noteworthy prize for the winner in each contest will be awarded April 21.

Jackson, L. W. Long,
Feb. 1, 1938. Secretary.

DIRECTORY AND CALENDAR OF MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-First Annual Session and Thirty-Fifth Annual Session of the House of Delegates, Jackson, April 19, 20, 21.

Adams County Medical Society: A. R. Perry, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p. m.

Amite County Medical Society: W. S. Stewart, Oskya, president; D. H. Thornhill, Crosby, secretary. Meets second Thursday, each month with Wilkinson County Medical Society, Field Memorial Hospital, Centreville.

Central Medical Society: J. T. Rainer, Yazoo City, president; Lawrence W. Long, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m., except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. D. House, Sledge, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clark-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: William P. Warfield, Clarksdale, president; N. C. Knight Clarksdale, secretary. Meets second Wednesday each month, Alcazar Hotel, Clarksdale, 12 noon.

Coast Counties Medical Society: W. W. Lake, Pass Christian, president; D. L. Hollis, Biloxi, secretary. Meets first Wednesday, each month at night.

Delta Medical Society: E. T. White, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

Desoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, Rt. 4, Memphis, secretary. Meets first Monday of January, April, June, October, Hernando, 10 a. m.

East Mississippi Medical Society: C. H. Harrison, Philadelphia, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: C. A. Everett, Bude, president; L. Costley, Meadville, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: B. B. Martin, Jr., Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday each month, Mississippi State Charity Hospital, Vicksburg, 7 p. m.

Marshall County Medical Society: C. R. Senter, Byhalia, president, Herbert Phillips, Holly Springs, secretary. Meets second Thursday each month, alternating between Byhalia and Holly Springs.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Newton County Medical Society: V. L. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: R. M. Adams, Ripley, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: Dr. R. J. Brown, Iuka, president; A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September, December.

Pike County Medical Society: E. M. Givens, McComb, president; T. Paul Haney, Jr., McComb, secretary. Meets first Thursday, each month, McComb, 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R.F.D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tallahatchie County Medical Society: G. Lacy Biles, Sumner, president; G. D. Hightower, Webb, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday, each month, Senatobia.

Tri-County Medical Society: R. B. Zeller, Hazlehurst, president; J. C. McGuire, Hazlehurst, secretary. Meets March 15, Copiah-Lincoln Junior College, Wesson; June 14, Walthal Hotel, Tylertown; September 13, Riverside Hotel, Monticello; December 13, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: C. E. Catchings, Woodville, president; E. M. Butler, Centreville, secretary. Meets second Thursday, each month, with Amite County Medical Society, Centreville.

Winona District Medical Society: T. J. Brown, Grenada, president; S. B. Caruthers, Grenada, secretary.

CONTROL OF CANCER

Dr. Emma Gay, Biloxi, State Commander, Women's Field Army of the American Society for the Control of Cancer, announces the enlistment campaign for April 1 to 30, and the following five point program:

The Layman's Five Point Program of Cancer Control

1. To teach every man, woman and child in the country that early cancer is curable and that general cancer mortality figures can be reduced only by courageous alertness and prompt action by the *individual*.
2. To distribute widely the danger signals of cancer that we may reduce the delay, often fatal if cancer is present, between the appearance of these signs and a visit to a physician.
3. To emphasize the great importance of a complete annual physical examination by a competent physician.
4. To interest men and women in all aspects of cancer, diagnosis, and treatment, research and related problems, the needs of underprivileged victims of the disease.
5. To enlist during the month of April each year as many women and men as possible in the support of the Women's Field Army of the American Society for the Control of Cancer. The enlistment fee dollars are needed to carry out educational work. When the above program is satisfactorily financed, other projects selected and approved by the leading cancer authorities in each state may be launched and supported.

MEDICINE IN MISSISSIPPI*

Hunter L. Scales
Starkville, Miss.

Oktibbeha County Medical Society and Friends:

For the last year or two I have had time for quite a good deal of thinking, and I have arrived at some very definite conclusions. Now, I don't propose to bore you with a lot of detail. However, I want to give you a brief outline which I hope will cause you to do some thinking.

The country practitioner has been very indifferent as to his future. In fact, I think we have acted as a set of fools. Every legislative year we are all told to see our state senator and representative and insist upon their supporting some urgent medical bill. I don't know of a single bill that has passed in the last thirty years that has been of a direct benefit to the country doctor. Each expansion of the Board of Health means a contraction of the activities of the country practitioner. I am heartily in favor of the State Board of Health activities along educational lines, but I am forever opposed to the said Board of Health going into the practice of medicine, or curative medicine. It has gotten to where flu and pneumonia are the only two common diseases left for us to treat, and frequently when we find the poor fellow with pneumonia it means that we have to furnish him medicine, a big part of his nursing, and more than likely most of his nourishment, and when I say furnish, I mean give it to them, and pay for it out of our own pockets, with the probability of never being reimbursed.

On the other hand, you take the hospital owners. They are closely organized, and I admire them for it. Each legislature is lobbied into passing bills that permit them to collect from the state adequate returns for everything furnished the so-called charity patient, except their actual labor, or fee, and we, the country doctors helped them get these bills through. As I see the situation, it can be easily controlled by an organization of the country doctors. We are the feeders to the hospitals, and we are the taxpayers and we are the close associates of our representatives in the legislature.

As I stated before, I am for state medicine in Mississippi nearly as it is today, and I am opposed to their broadening their activities. I am for the hospital owners, but primarily I am for the country practitioner. There is a place in medicine for all of us and an opportunity for each of us to render a service in our respective capacities if we will co-operate with each other.

I am anxious to see a society composed of country doctors. Then let the representatives for the State Board of Health, State Hospital

---

Read before the Oktibbeha County Medical Society and Oktibbeha Hospital staff, Starkville, January 28, 1938.

Association and the ordinary practitioner get together and work out a plan of mutual benefits. If this is not done, we, the country doctors, are going to find themselves in a deplorable condition. They are going to find that those who are taking care of them, not having any incentive for further study, will not keep up with the modern trend of thought. Not having any competition, most human beings are lazy, and the public will find themselves more than likely receiving numbered prescriptions that practically require no thought on the part of the prescriber.

Now, gentlemen, I have only tried to start you to thinking. The things that I have stated here to the best of my knowledge are based on facts, and not theory. If you want results of state medicine inquire into conditions in Russia and England. If you want to know something of state medicine's double first cousin, hospital insurance, go to our close neighbor, the State of Florida, and you will find in existence, probably the oldest hospital insurance in America, and you will certainly find a deplorable condition, as far as the doctor's remuneration is concerned.

STATE BOARD OF HEALTH

Dr. W. Frank Walker, director of the division of health studies of the Commonwealth Fund, New York City, and Miss Carolina Randolph, associate director, conferred on January 20 with central office and Pike County Health Department personnel in Jackson regarding the health program in Pike County, a Commonwealth unit. Present at the conference were Dr. Underwood, Dr. J. A. Milne, director of maternal and child health; Dr. Maxwell E. Lapham, director of medical extension, Tulane University; Dr. T. Paul Haney, Jr., director of Pike County health department; Miss Mary D. Osborne, supervisor of public health nursing; Miss Ora E. Phillips, field advisory nurse; and Mrs. Ella M Sayle, supervisory nurse, Pike County.

Dr. Underwood addressed postgraduate health officers and sanitary supervisors at Vanderbilt University January 21, on "The Development of a State Public Health Program," and "Legal Basis for Public Health Regulations and Supervision."

Fifty-five cases of smallpox have been reported during January, 1938, primarily in central Mississippi, and the disease is gradually spreading north and south, according to Dr. A. L. Gray, director of preventable disease control.

It is expected that smallpox will continue to be prevalent throughout February, March, and April. About 120,000 people have been vaccinated during January in approximately eight counties. Several of the cases have been mild, the first diagnosis being chickenpox. There is a marked increase in smallpox all over the United States.

Dr. A. G. Gilliam, past assistant surgeon with the U. S. Public Health Service, made a recent trip to Mississippi regarding a diphtheria study to be made here. Diphtheria, though preventable, still takes a needlessly high toll of human life, 73 deaths having resulted from this disease in Mississippi during 1936.

Visitors to the State Board of Health during January included: Jess W. Hair, State Department of Education, Baton Rouge, La.; and Albert E. Casey, St. Louis University, St. Louis, Mo.

Dr. H. C. Ricks, director of county health work, addressed the Rotary Clubs in Charleston and Hollandale during the latter part of January on methods of syphilis control. Syphilis clinics in the delta already are operating in Tallahatchie and Washington Counties as well as in Coahoma County and the Sharkey-Issaquena District.

"The value of syphilis control is becoming more apparent to people all over the state, and their enlightened support of physicians and health workers in syphilis control is more manifest from month to month," Dr. Ricks said.

Recommendations to extend maternal and child health services with the ultimate objective of caring for all prospective mothers unable to obtain care otherwise were presented to President Roosevelt in mid-January by a committee of which Dr. Felix J. Underwood is a member. Composed of four members, the Conference on Better Care for Mothers and Babies included also. Dr. Fred L. Adair, chairman of the American Committee on Maternal Health, Chicago; Mrs. Charles W. Sewell, Federal Farm Bureau Federation, Chicago; and Mrs. C. H. Turner of the National Congress of Parents and Teachers, Redondo Beach, California. Others in the conference which visited the White House were Miss Katherine Lenroot, chief and Dr. Martha Eliot, assistant chief of the Federal Children's Bureau.

The conference proposed an amendment to the Social Security Act whereby a larger sum will be available in the states annually for the care of mothers and newborn infants. As chairman of the committee on community resources, Dr. Underwood presented the recommendation to the President.

The maternal mortality in the United States is high as compared with other countries, and for this reason, the combined efforts of Federal agencies, state and local health workers, and physicians, are imperative in order to reduce the needless deaths among mothers in childbirth.

A gift of 1250 books from the library of Mississippi's illustrious physician-editor-investigator, Dr. W. A. Evans, has been received by the State Board of Health library. Collected over a period of years when Dr. Evans practiced medicine, served as city health officer in Chicago, and as professor of public health and preventive medicine at Northwestern University, the volumes will be an invaluable addition to the library content as well as an inspiration to those who use them.

Dr. Evans has only recently returned from a trip to Europe and Africa where he devoted special study to tropical diseases.

In his industrial hygiene program, Dr. J. W. Dugger recently tuberculin-tested 400 children in Amite County. He also gave numerous smallpox vaccinations to school children and made frequent health talks in the schools of the county. These activities were a preliminary to the opening of the full-time health department in Amite County.

On January 6, Dr. Felix J. Underwood spoke to the Jackson Chamber of Commerce on "Syphilis, A Menace to Public Health." Cited was the need for proper treatment and care of this disease to displace the too-widespread practice of quackery and charlatanism in the state.

On January 10, Dr. Underwood, Dr. H. C. Ricks, director of county health work, Dr. A. L. Gray, director of preventable disease control, Dr. H. B. Cottrell, supervisor of field unit, and Miss Margaret Meade, nurse with the epidemiological unit, went to Canton where with Dr. C. C. Smith, director of the Madison County Health department, they discussed the findings of the recent communicable disease study conducted there by Dr. Gray.

Dr. Edward M. Meek, of Glendora, and Dr. Charles T. Berry, of Greenville, have just returned to their respective communities after completing a one month's course at the Vanderbilt University Clinic in the Diagnosis, Investigation, and Treatment of Syphilis under the supervision of Dr. R. H. Kampmeier. Both report a splendid course of instruction at this Clinic by Kampmeier and his associates.

Dr. H. C. Watkins, of Quitman, has been appointed health officer of Clarke County to succeed Dr. G. E. Godman who resigned, effective January 15.

On January 12, Dr. Underwood spoke to the Gloster Lion's Club on "Community Building." Amite County, in which Gloster is located, has recently authorized establishment of a new full-time health unit, which will give Mississippi a total of thirty-one counties having the benefits of full-time health protection.

To the meeting of the Northeast Mississippi Dental Association in Tupelo, January 17, went Dr. J. A. Milne, director of maternal and child health, and Miss Gladys Eyrich, supervisor of mouth health. Several nationally known dentists appeared on the program, including: Dr. Walter McFall, Dr. George Seeman, Dr. Roy O. Elam, and Dr. Oren A. Oliver, all of Nashville, Tennessee.

Stressed was the importance of children's dentistry to their health and well-being.

The radio program conducted over WJDX weekly by the State Board of Health was as follows during January: January 1, "Pneumonia—Its Prevention and Cure." Dr. H. C. Ricks; January 8, "Shadows of the Past—a Command for the Future," Dr. A. L. Gray; January 15, "The Work of the State Sanatorium in the Modern Care of Tuberculosis," Dr. Henry Boswell; January 22, "How May the Church Assist in the Social Hygiene Program," Dr. J. Lloyd Decell, pastor of Galloway Memorial Church, Jackson; January 29, "Join the Fight," an explanation of the new National Foundation against infantile paralysis, Dr. Felix J. Underwood.

Jackson, Felix J. Underwood,
Feb. 4, 1938. Executive Officer.

POSITIVE WASSERMANN REACTIONS

In the February, 1935, issue of the Journal of the Medical Association of Georgia, appeared a classification of Wassermann reactions by race, sex, age, and occupation of patients, prepared by E. L. Webb, A. B., Serologist of the Georgia State Board of Health. This covered a five-year period and the numbers included are great enough to give special significance. The classification by occupations is given below. It is probable that the percentage of positive Wassermann reactions would not be far different in Mississippi.

INCIDENCE OF POSITIVE WASSERMANN REACTIONS CLASSIFIED BY OCCUPATION OF PATIENTS

	Total	Positive	Per Cent (approx)
Barber—Beauty Shops	6,525	624	10
Barbers	5,180	540	10
Beauticians	1,316	75	6
Manicurists	29	9	31
Clerical Workers	7,932	1,090	14
Bookkeepers	632	63	10
Clerks	5,550	834	15
Office Workers	327	42	13
Postal Employees	384	72	19
Secretaries	112	4	4
Stenographers	898	74	8
Others	29	1	3
Farmers	15,781	3,146	20
Food Handlers	9,011	2,741	30
Bakers	171	33	19
Bottlers	22	5	23
Butchers	373	52	14
Candy Makers	164	35	21
Cooks	4,683	1,927	41
Counter Girls	163	5	3
Dairy Employees	806	94	12
Dishwashers	105	33	31
Food handlers, not specified	317	62	20
Ice Distributors	125	41	33
Grocers	350	48	14
Restaurant Employees, not specified	1,564	386	25
Soda Dispensers	168	20	12
Home	31,322	5,804	19
Housewives	31,130	5,765	19
Prenatal	192	39	20
Industry	13,504	2,236	17
Bus Drivers	62	15	24
Electrical Employees	1,772	136	8
Elevator Operators	82	22	27
Laundry	1,331	450	34
Mine Workers	37	4	11
Manufacturing Plants	516	106	21
Naval Stores	257	78	30
Railroad	1,774	378	21
Lumber Industry	436	97	22
Telegraph	119	7	6
Telephone	318	46	14
Textile	6,755	890	13
Others	45	7	16
Labor, common	12,581	4,055	32
Labor, skilled	5,840	1,213	21
Blacksmiths	101	23	23
Brick Masons	161	35	22
Carpenters	863	191	22
Cement Workers	27	8	30
Decorators	35	3	9
Electricians	432	82	19
Machinists	280	45	16
Marble Cutters	115	21	18
Mechanics	2,088	438	21
Moulders	87	20	23
Painters	547	122	22
Plasterers	110	29	26
Plumbers	166	31	19
Printers	325	64	20
Shoe Makers	130	29	22
Sheet Metal Workers	68	19	28
Steam Fitters	59	11	19
Steel Workers	87	16	18
Tailors	83	14	17
Upholsterers	76	12	16
Mercantile Business	6,608	1,078	16
Merchants	1,843	264	14
Salespeople	4,765	814	17
Midwives	3,724	601	16
Professional	4,021	459	11
Bankers	164	21	13
Chemists	52	11	21
Dentists	92	9	10
Druggists	244	31	13
Lawyers	233	30	13
Musicians	117	21	18
Physicians	150	13	9
Nurses, Registered	376	13	3
Preachers	280	44	16
Teachers, School	1,489	134	9
Undertakers	132	30	23
Others	39	2	5
Semi-Professional			
Architects	24	2	8
Brokers	77	9	12
Contractors	370	50	14
Engineers, Civil	42	6	14
Hospital Attendants	73	26	36
Jewelers	38	2	5
Photographers	29	5	17
Servants, Domestic	4,725	1,656	35
Chauffeurs	437	149	34
Janitors	443	140	31
Maids	2,272	847	37
Nursemaids	734	269	37
Servants, not specified	553	175	32
Washwomen	148	51	34
Yardmen	138	25	18
School Children			
Students	8,215	732	9
Miscellaneous	6,489	1,727	27
Custodians—Guards	200	37	18
Delivery Boys	207	59	29
Filling Station Employees	290	67	23
Firemen, not specified	499	51	10
Govt. Employees	221	55	25
Newspaper Employees	134	18	13

Officers of the Law	647	76	12
Porters	1,117	403	36
Prisoners	1,168	426	36
Taxi Drivers	259	77	30
Truck Drivers	853	241	28
Others	894	217	24
Total	136,278	27,162	20

MEDICAL LIBRARY

The Medical and Public Library of the Mississippi State Board of Health is the recipient of a gift of over twelve hundred volumes from Dr. W. A. Evans, native of Aberdeen, Miss. For many years health officer of Chicago, and a pioneer in health education procedures, Dr. Evans is perhaps best known throughout the country for his "How to Keep Well" articles. Because of his contributions to health and to medical science generally, his gift is a prized one and truly characterizes the qualities of the donor and his ambition to continue the improvement of health and medical standards.

The Mississippi State Board of Health Library was started about two years ago with 5,000 volumes and is rendering an important service to the medical, public health, and allied professions of the State.

Jackson, Feb. 5, 1938.

HINTS FOR MALES

Christopher Billop offers a line of new suggestions, this time: "Household Hints for the Male." The following appeared in the Baltimore Sun:

Stains caused by the juices of peaches, pears and similar fruits may be avoided by wiping the fingers on the inside of the trouser pocket.

Singing aloud while the water is running and keeping the door to the bathroom tightly shut should prevent you from hearing other members of the family who implore you to save a little hot water for them.

Adequate supply of cream for cereal and coffee may be obtained by being the first person down to breakfast.

If the centerpiece of flowers on the table is sufficiently high, a dog may be fed tidbits with comparatively little danger of detection.

A generous helping of stuffing and gravy will conceal a stingy helping of breast of chicken.

The threading of a needle can be made easy by holding the needle steady with a carpenter's vise during the operation.

A man who is clumsy with his hands will find more time at home for reading, resting and meditation.

A pair of scissors will serve admirably for cleaning the bowl of a pipe, provided nobody is looking.

An excellent place for the concealment of keys is the bottom of a vase on the living room mantel.

A wife's letter paper may be used discreetly by drawing a line through the "Mrs."

Considerable saving on telephone calls may be made by speaking briefly when you make a call and confining long conversations to calls that come to you.

A letter which was to have been mailed and has been forgotten, if secreted in the pocket and ignored may be mailed the next day.—Vicksburg Evening Post.

NON-PROFIT HOSPITAL CARE INSURANCE PLANS

Under date of Feb. 1, 1938, the Committee on Hospital Service of the American Hospital Association has published information in regard to the plans organized on a non-profit basis and sponsored by a majority of the hospitals in respective communities or are regulated by state departments of insurance as non-profit hospital service associations. The information which is given below should be of special interest in Mississippi at this time.

	Beginning of Enrollment Or Date Organized	Employed Subscribers	Dependents	Total
Hospital Service Corporation of Alabama, Birmingham, Alabama	April 1938	10,000	7,000	17,000*
Insurance Association of Approved Hospitals, Oakland, California	Jan. 1937	8,861	294	9,155
Intercoast Hospitalization Insurance Association, Sacramento, California	July 1932	15,000	5,000	20,000*
Associated Hospitals Service Fund, San Jose, California	June 1933	893	253	1,146
Plan for Hospital Care, New Haven, Connecticut	Feb. 1937	7,428	6,328	13,756

Hospital Service Plan Norwalk, Connecticut	Feb. 1936	6,939	2,938	9,877
Group Hospital Service, Wilmington, Delaware	Nov. 1935	5,961	4,162	10,123
Group Hospitalization, Inc., Washington, D. C.	July 1934	32,000	15,000	47,000
United Hospital Service Corp., Atlanta, Georgia.	Jan. 1938	....	....	....
Plan for Hospital Care, Chicago, Illinois	Jan. 1937	17,982	13,505	31,487
Associated Hospital Service, Danville, Illinois	Aug. 1937	266	209	475
Associated Hospital Service, Decatur, Illinois	Jan. 1938	....	....	....
Central Illinois Hospital Service Association, Peoria, Ill.	Dec. 1936	1,434	1,095	2,529
Ashland Hospital Service Ass'n, Ashland, Kentucky	April 1936	1,001	2,009	3,010
Flint—Goodridge Hospital Plan, New Orleans, Louisiana	Dec. 1936	1,455	1,037	2,492*
Hospital Service Association of New Orleans, Louisiana	Feb. 1934	15,555	16,745	32,300
Associated Hospital Service, Baltimore, Maryland	Nov. 1937	2,525	1,680	4,205
Associated Hospital Service of Massachusetts, Boston, Massachusetts	Oct. 1937	6,796	3,795	10,591
Minnesota Hospital Service Ass'n., St. Paul, Minnesota	July 1933	65,354	72,882	138,236
Group Hospital Service, Inc., St. Louis, Missouri	April 1936	14,000	4,000	18,000
Hospital Service Plan of New Jersey, Newark, N. J.	Jan. 1933	20,000	10,000	30,000*
Associated Hospital Service of Capital Dist., Albany, N. Y.	Sept. 1936	5,737	4,922	10,659
Hospital Service Association of Western New York, Buffalo, N. Y.	Jan. 1937	7,974	8,240	16,214
Hospital Service Corporation, Geneva, New York	Oct. 1935	971	88	1,059
Jamestown Hospital Service Corporation, Jamestown, N. Y.	Feb. 1937	809	523	1,332
Associated Hospital Service of New York, New York City	May 1935	325,800	230,094	555,894
Rochester Hospital Service Corporation, Rochester, New York	June 1935	46,122	39,551	85,673
Group Hospital Service, Syracuse, New York	Jan. 1936	21,979	11,454	33,433
Central New York Hospital Service Corporation, Utica, New York	Feb. 1937	6,848	5,000	11,848
Hospital Service Corporation of Jefferson County, Watertown, N. Y.	July 1937	1,021	755	1,776
North Carolina Hospital Savings Ass'n, Chapel Hill, N. C.	Jan. 1936	34,338	16,153	50,491
Hospital Care Association, Durham, North Carolina	Jan. 1934	23,346	22,282	45,628
Hospital Service Association of Summit County, Akron, Ohio	Jan. 1937	11,208	....	11,208

Cleveland Hospital Service Association, Cleveland, Ohio	Sept. 1934	69,776	10,470	80,246
Abington Hospital Service Association, Abington, Pennsylvania	May 1937	2,496	2,782	5,278
Associated Hospital Membership Plan, Easton, Pennsylvania	Sept. 1935	3,823	5,191	9,014
Hospital Service Corporation of Pittsburgh, Pittsburgh, Pennsylvania	Jan. 1938	....	---- ----	....
Holston Valley Hospital Service Plan, Kingsport, Tennessee	Aug. 1935	2,714	4,902	7,616
Tidewater Hospital Service Association, Norfolk, Virginia	Sept. 1935	5,601	3,612	9,213
Richmond Hospital Service Association, Richmond, Virginia	Jan. 1936	5,476	2,344	7,820
Associated Hospitals, Inc., Bluefield, West Virginia	April 1933	4,566	7,315	11,881
Hospital Service, Inc., Charleston, West Virginia	May 1933	4,710	7,600	12,310
TOTAL		815,765	549,210	1,364,975

*Estimated Figures

CENTRAL MEDICAL SOCIETY

Jackson
February Meeting
Tuesday, February 1, 1938
Robert E. Lee Hotel Roof, Jackson
Dinner at 6:30 p.m.

To date we have 157 paid-up members with 2 transfers or a total of 159.

Hinds:	93 paid;	19 not paid
Leake:	11 paid;	6 not paid
Madison:	7 paid;	11 not paid
Rankin:	10 paid;	4 not paid
Scott:	6 paid;	5 not paid
Simpson:	13 paid;	5 not paid
Yazoo:	14 paid;	7 not paid
Copiah:	3 paid	
Smith:	2 paid	
TOTAL	159 paid;	57 not paid

With 8 more members in Hinds County, we are entitled to another delegate to the State Association. Urge your neighbor to pay his dues now!

Program

1. "Management of Patients Presenting Cardiac Symptoms."—A. G. Ward.

Discussion: G. W. F. Rembert and Lee Lipscomb.

2. "The Evaluation of Methods of Treatment of Appendicitis."—J. W. Barksdale. Discussion: J. F. Armstrong and H. R. Shands.

3. "Grading of Cancer."—J. C. Henthorne. Discussion: R. D. McLean.

A well-rounded program—short—diversified. Will be well presented. Come out and bring the doctor next door.

Be sure to come and everybody bring one doctor with you!

Jackson, Lawrence W. Long,
Jan. 28, 1938. Secretary

COAHOMA COUNTY MEDICAL SOCIETY AND CLARKSDALE HOSPITAL MEDICAL STAFF

The Coahoma County Medical Society and Clarksdale Hospital Medical Staff was called to order in the private dining room of the Alcazar Hotel in Clarksdale Jan. 12, immediately after lunch. Both the president and vice-president being absent, Dr. T. M. Dye was elected to preside. Minutes of the previous meeting were approved as read.

The following were elected to serve as the relations committee for the first six months of 1938: W. H. Brandon, J. L. Levy, E. LeRoy Wilkins.

After discussion, a motion was made to hold the syphilis clinic in Clarksdale each Friday, 1 to 3 p. m., or any part thereof that is necessary; patients to report at 12 o'clock.

Dr. H. N. Waggoner was the nominated for membership and unanimously accepted.

Dr. W. H. Brandon discussed a newspaper put out at Canandaigua, N. Y.,, by the Medical Society there which was a special edition setting forth the local available medical, hospital and public health facilities, the purpose of which was to acquaint the public with these facilities. He made a motion, which was seconded and carried, that this society have a similar edition printed by the Clarksdale

Register, and that the president appoint a committee of three members to promote same and work with the Register and censor material that goes into the edition. Discussed by Robinson, Dye, Slaughter, Barrett, and others.

The scientific session being the next order of business a paper entitled "Arterio-Venous Aneurysm" was presented by W. H. Brandon. Discussed by Levy, Wilkins; closed by Brandon.

There being no further business the Society was adjourned.

Clarksdale, N. C. Knight,
January 17, 1938. Secretary

HINDS COUNTY

Dr. I. C. Huggins has announced the opening of offices in Suite 522-523 Standard Life Building, Jackson. His practice is limited to urology and proctology.

Jackson, Jan. 10, 1938.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, February 8. After supper served at 7:00 p.m., the meeting was called to order by the president, Dr. B. B. Martin, Jr., with twenty-two members and seven guests present.

Papers and Discussions.—Dr. W. K. Purks, Vicksburg, chairman.

1. The Treatment of Lobar Pneumonia (Lantern Slides).—Dr. Conley H. Sanford, Memphis, Tenn.

Discussed by Drs. Martin, Jr., Purks, W. C. Brownson, and G. M. Street. Dr. Sanford closed.

2. Illustrations of Two Problems of Diagnosis and Prognosis in Heart Disease: (a) Bedside Diagnosis of Auricular Flutter, and (b) Functional Bundle Branch Block.—Dr. W. K. Purks.

Dr. E. H. Jones, director, made a report of the clinic conducted under the direction of the Society, for the month of January, which showed a total of 452 persons receiving service; 833 patient visits from 17 counties of the state and three other states.

The next meeting of the Society will be held at the Mississippi State Charity Hospital, March 8. The subject will be Common Colds and Influenza, and the committee in charge consists of Drs. Alston Callahan, chairman, J. A. K. Birchett, G. C. Jarratt, and E. H. Jones, all of Vicksburg.

MONROE COUNTY MEDICAL SOCIETY

The Monroe County Medical Society met in regular monthly session on Monday night, Jan. 3, in the office of Dr. M. Q. Ewing, Amory.

Most of the doctors in the county were present, and I think we all agree, that we had an outstanding meeting; to my mind the best meeting since the organization of the county society.

Dr. W. A. Evans, Aberdeen, lectured to us on the "Pneumonias."

The ideas he advanced cannot be duplicated. To fail to hear Dr. Evans when the opportunity presents is a loss that cannot be made good.

Monroe County has not had an epidemic of any nature now for some time.

Our doctors all seem to be in good health, even if low in a financial way.

Amory, C. E. Boyd,
Jan. 19, 1938. County Editor.

OKTIBBEHA COUNTY MEDICAL SOCIETY

The Oktibbeha County Medical Society met with the staff of the Oktibbeha Hospital at the hospital, Starkville, Friday night, January 28.

Dr. J. W. Crumpton, Sturgis, the oldest practicing physician in the county, gave an interesting talk on the practice of medicine, covering fifty odd years. Dr. A. R. Sanders, Artesia, gave an instructive talk and report of two cases of abdominal pregnancy. Dr. H. L. Scales, Starkville, read a very interesting paper on cooperation.

There were present Drs. F. E. Barr, W. E. Murphy, C. R. Dodd, A. E. Sanders, J. W. Crumpton, H. L. Scales, C. B. Mitchell and F. B. Long.

The next meeting will be February 24.

Starkville, F. B. Long,
Feb. 2, 1938, Secretary.

ATTALA COUNTY

Dr. W. R. Pope

On Jan. 2, 1938, at the death of Dr. W. R. Pope of Kosciusko, the medical profession lost one of its most honorable members and Attala County lost one of its most unselfish benefactors. Dr. Pope graduated from the University of Nashville in 1900 and since that time has devoted his time and service unstintingly to the rich and poor alike of this county. His death followed a laryngeal affection which began one year ago.

Kosciusko, Jan. 6, 1938.

John W. Pender, County Editor.

DESOTO COUNTY

This month marks the 300th anniversary of the introduction of quinine to civilization. The "old faithful" of all fever fighting medicines is a subject almost reverenced in many quarters.

The League of Nations appointed a malaria commission which, after long research, recommended daily doses of six grains of quinine as a preventive of malaria during the malaria season.

The name "quinine" for the extraction from the bark is derived from "quina-quina," th term the Indians of Ecuador used for the bark.

I recall hearing an old physician state that if he was restricted to three drugs he would select castor oil, quinine, and sulphur; if to two, the first two listed; if to one, the first, good old reliable castor oil, not so palatable but very effective, the bane of children.

Dr. Denver C. Funderburke, Olive Branch, and of the Funderburke Clinic, is senior deacon of his Masonic Lodge. He, as many other physicians are, is active in civic and religious affairs.

Dr. O. C. Brewer, Robinsonville, was a professional and business visitor in Memphis recently. Drs. Brewer and Funderburke, from reports, are kept busy in their chosen work.

Mrs. Emerson, wife of Dr. Charles W. Emerson, Hernando, was listed as a patient in the Baptist Memorial Hospital, Memphis; also Mr. C. E. Emerson, an uncle of the doctor and a prominent business man of Hernando. Reports are that both are much better.

As a columnist for a chain of large newspapers, Dr. Logan Clendening of Kansas City is much preferable to his predecessor, the prosaic Dr. Royal S. Copeland, the rather recalcitrant U. S. Senator from the Empire State.

Our own Dr. W. A. Evans was the peer of all medical columnists.

To A Speeder

I saw you barely miss a little boy on a tricycle this afternoon, and heard you yell, "Get the hell out of the way! Don't you know any better than to ride in the street?" He didn't answer because he hasn't learned to talk yet. So I'm going to answer for him.

No, the little boy doesn't know any better than to ride his tricycle in the street. He has been warned not to, but little boys don't always heed warnings. Some adults don't, especially traffic warnings; for example, the one limiting the speed of automobiles in city streets.

I am going to tell you something about that little boy: He has a mother who endured considerable inconvenience, anxiety and suffering to bring him into the world. He has a father who worked hard and made many sacrifices to make him healthy and happy. The supreme purpose of their lives is to have their little boy grow up to be a useful and prosperous man.

Now stop a minute and think. I know your minutes are valuable and I know it will be hard for you to think. But try. If you should kill a child, how would you feel facing its parents? What excuse could you possibly offer Him whose kingdom is made up of little children?

Children, my hasty friend, were here long before you or your automobile were ever thought of. All the automobiles on earth are not worth the life of one little boy on a tricycle. Any competent garage mechanic can put a car together, however badly it's smashed, but nobody on earth can put a child together once its life has been crushed out. We don't know what that child may some day be. But we know what you are, and it's unimportant. We could get along without you, but we can't spare a single little boy on this street.——Augusta Union.

This morning's papers report the serious illness, pneumonia, of Dr. Eugene J. Johnson, of Memphis; Dr. Johnson is a native of Mississippi and for some time practiced at Yazoo City. He has many friends in the Tri-State territory that pray for his recovery.

Route 4, Memphis, Tenn. Feb. 9, 1938.

L. L. Minor, County Editor.

HUMPHREYS COUNTY

Mrs. J. F. Slaughter, Sr., Silver City, announces the marriage of her daughter, Mrs. Hazel Carroll Slaughter to Mr. Claude Rogers Gholson, also of Silver City, on Jan. 26.

The bride's father was the late Dr. James F. Slaughter. Mr. Gholson is the son of Mr. and Mrs. Ashby Gholson of Demopolis, Ala.

Miss Virginia James, daughter of Dr. and Mrs. W. A. D. James, Midnight, was chosen the 1937 Mississippi Citizenship Girl in the annual D. A. R. contest. Miss James is a student at Sunflower Junior College. She is planning her "good citizenship" life as a Mississippi doctor, to follow in her father's footsteps.

Friends of Mrs. T. J. Barkley, Isola, will be glad to know she is improving rapidly. Mrs. Barkley broke her limb in a fall soon after New Years.

Dr. and Mrs. Robert Jackson were called to Daytona Beach, Fla., Jan. 24, on account of the death of Mrs. Jackson's father, Mr. J. C. Bagwell. We all extend sympathy to them in their hour of sorrow. Dr. Robert has been quite ill of influenza since their return, but is much improved at this writing.

Belzoni, J. W. Jackson,
Feb. 4, 1938. County Editor

LEFLORE COUNTY

Dr. S. L. Brister, Jr., attended the Sugar Bowl game in New Orleans, Saturday, Jan. 1.

Dr. D. L. Anderson, State Sanatorium, spent the first week in January here, investigating cases of tuberculosis for the board of health. He also addressed the District Health Nurses Association in session here Jan. 13.

Dr. Wm. S. Mhoon, Philip, died at 8 p. m., Jan. 5, of pneumonia.

At the regular staff meeting of the Greenwood Leflore Hospital Jan. 6, there were 18 present. Dr. G. Y. Gillespie, Jr., reported the death of a man, 78, with chronic interstital nephritis and terminal bronchopneumonia. Dr. S. L. Brister, Jr., reported a case of cerebrospinal meningitis, and also a case of laryngeal diphtheria.

Dr. and Mrs. J. F. Lucas and family have moved to an apartment on West River, and Dr. and Mrs. R. E. Wilson and family have moved to the apartment on West Washington, vacated by Dr. Lucas.

Mrs. R. J. Peterson, Schlater, was admitted to G. L. Hospital for a major operation, January 28.

Dr. and Mrs. J. W. Lucas and family, Moorhead, were visitors to Greenwood, Saturday, Jan. 29.

Dr. Clarence Carlson, Quitman, now serving his internship at the Baptist Hospital, Memphis, was a visitor here Jan. 30.

Dr. and Mrs. W. B. Dickins and Miss Marion visited in the home of his brother and family at Clarksdale, Sunday, Jan. 30.

Greenwood, W. B. Dickins,
Feb. 2, 1938. County Editor.

PANOLA COUNTY

Dr. H. R. Elliott, Batesville, has been making satisfactory progress since his last operation for brain tumor.

Dr. Baird, Sardis, has moved to Ft. McLellan.

Dr. S. T. McIlwain has moved to Waynesboro.

Dr. J. E. Coe, Lambert, is expected to move to Batesville in a few days.

Dr. A. J. McIlwain is the proud father of a second son, born recently in a Memphis hospital.

Dr. J. C. Pou, Courtland, celebrated his 89th birthday a few days ago.

Dr. A. J. McIlwain has joined the Rotary Club of Batesville.

Batesville, G. H. Wood,
Feb. 4, 1938. County Editor.

WASHINGTON COUNTY

The many friends, throughout the state, of Dr. A. J. Ware will be saddened to learn of his death at Jackson, Jan. 30, where he moved from Greenville in September, 1937. While not actually engaging in the practice of medicine, for several years, Dr. Ware maintained a keen interest in the profession and a warm friendship for its members. Drs. J. G. Archer and H. A. Gamble, of Greenville, attended the funeral service in Jackson, Jan. 31.

Dr. C. E. Roach, Greenville, was confined to his house for a week with an attack of influenza.

The new nurses home of the King's Daughters Hospital was opened for public inspection Sunday, Jan. 23. Approximately 1,500 visitors were conducted through the building. Nearly all expressed admiration for the truly modern and home like quarters for the nurses as well as the up-to-date facilities for instruction in the art and science of nursing upon which the public and the medical profession have come to rely so profoundly. Occupation of the structure by the undergraduate classes, now numbering forty-four, was completed by the end of January.

Dr. James L. Salmon, Greenville, has served his association of several months with Dr. F. M. Acree, and will remove to Drakesborough, Ky., about Feb. 1, where he will continue the practice of medicine and surgery. Dr. Acree is considering the application of several young physicians to succeed Dr. Salmon, but at the time of this writing has not made a selection.

Dr. J. B. Hirsch, Greenville, made a short business trip to Brownsville, Tenn., during January.

Dr. G. W. Eubanks spent a few days with friends and relatives in Helena, Ark., this month.

Dr. J. A. Beals, Greenville, visited his son, Tom, in early January. His son is a student at Georgia Tech., Atlanta, Ga.

Dr. C. T. Berry has just returned from Nashville where he has been taking a one month postgraduate course in treatment and prevention of syphilis. The course is given by Vanderbilt U. co-operating with the Mississippi State Board of Health. Dr. Berry reports enthusiastically of the instruction given and the wealth of clinical material.

Greenville, J. A. Beals,
Feb. 1, 1938. County Editor.

WINSTON COUNTY

We note with regret the death of Dr. W. I. Pope of Kosciusko. Dr. Pope was a native of Winston County and practiced at Ethel for a number of years. He was a man liked by all, ethical and unassuming and really was a successsful physician.

We offer sympathy to his bereaved family.

Mrs. Josh McAuler and son, of Philadelphia, and Miss Genevieve Wall, of Jackson, Tenn., recently visited their father and mother, Dr. and Mrs. W. W. Parks, Louisville.

Murrah Lovorn, Jackson, visited his father and mother, Dr. and Mrs. E. Lovorn, in this county.

The writer enjoyed a dinner given by Dr. W. W. Parks and his good lady, Mrs. W. W. Parks. The hospitality and good eats will be kindly remembered.

We regret to know of the misfortune of Dr. T. L. Parks, of Fearn Spring community, in the loss of his home, office and all household goods, office furniture and drugs. It was of unknown origin as there was no one at the home when it happened; no insurance, it was a total loss.

Louisville, M. L. Montgomery,
Jan. 31, 1938. County Editor.

INTERPRETING MEDICAL LITERATURE

EYE, EAR, NOSE and THROAT

Alston Callahan, Vicksburg

Otolaryngologists are finding the laboratory to be of even greater value. During the past years, investigators have found that study of the cells in the nasal secretions give valuable information.

Different investigators have collected specimens in different ways. Some have collected the secretion by passing a cotton tipped applicator into the middle meatus and the ethmosphenoidal recess. Others have allowed the patient to simply blow his nose at the time there is a natural desire to do so. (Forced blowing of the nose usually gives unsatisfactory results). The writer considers the latter method the better one. A smear is then made.

These smears are usually stained with Wright's stain; it is satisfactory and simple. The Giemsa stain is considered better, but is more difficult.

The cells found are neutrophils, eosinophils and large and small monocytes. Neutrophils indicate an acute infection. Eosinophils are suggestive (not diagnostic) of allergy. Small monocytes indicate chronic infection. Large monocytes indicate that the maximum reparative effort is being made and suggests a favorable prognosis. Of course, these cells are found in various proportions. For example, if the cells are almost entirely neutrophils and eosinophils, the picture would suggest an acute infection superimposed on an allergic background.

In acute infections and cases of bacterial allergy, many microorganisms are usually found. Smears made for these studies are customarily stained with Gram's stain.

While clinical studies will doubtlessly continue to be of first importance in the diagnosis and treatment, yet all additional help is warmly sought. Certainly this study of the nasal secretions will be enthusiastically received.

Vicksburg, Jan. 5, 1938.

Chronic Suppurative Otitis Media.—So often outstanding papers are written by members of the profession in large centers and it is with pleasure that we read of new developments as proposed by our own colleagues in Mississippi. Before the Eye, Ear, Nose and Throat Section of the last meeting of the American Medical Association, Dr. Robin Harris, of Jackson, presented a new treatment. He based it on the accepted fact that cleanliness is necessary for a cure of a chronic draining ear.

Instead of using various antiseptics, Dr. Harris used a digestant. After trying several he found carica papya (powd. ext.) to be satisfactory and reported several cases with excellent results. At a recent sectional meeting of the Am. L. R. & O. Society he described an improvement on his first technique of applying the powder with a blower, by using a solution of glycerin in distilled water and carica papaya (powd. ext.—marketed under the name of pulv. caroid). This solution deteriorates rapidly and must be used quickly. Dr. Harris has treated nearly sixty cases and reports excellent results.

Similar to this therapy is that of Mertins' in November, 1937 issue of the Archives of Otology, but in this paper urea is used. Caution is used and a weak solution of urea is gradually increased in strength. The urea method seems to be very convenient in that it can be used by patients who live at some distance from the otologist but Dr. Harris' method of using the digestant must be carried out by, or under the direct supervision of the otologist.

Surgical Treatment of Lacrimation.—Arruga, H. Arch. Ophth. (Jan.) 1938. In the introduction, attention is called to the fact that the arrangement of the lacrimal passages allows the development of latent processes which do not manifest themselves until the moment when the obstruction is complete. To the reviewer's mind, this is an exceedingly important point, and two cases seen recently confirm the truth of this assertion.

Stricturotomy, consisting of opening widely the lower canaliculus, is not looked upon with favor, and extirpation of the lacrimal sac is condemned. The procedure in general use until recently, extirpation of the lacrimal sac, is rapid and simple, but it leaves a definite and annoying lacrimation.

The real progress in the treatment of lacrimation resulting from obstruction of the nasolacrimal duct is due to the operation which replaces the nasolacrimal duct by an opening through the bony wall between the lacrimal sac and the nasal cavity. The opening is made with either mallet, chisel or drill and care is taken not to perforate the nasal mucous membrane. After securing an opening 1.5 mm. the nasal mucous membrane is incised in such a manner that it may be sutured to an opening made directly opposite in the lacrimal sac. These two openings are then sutured together as in an intestinal anastamosis.

Certainly the logic of Dr. Arruga's procedure is manifest and the reviewer's experience with one case handled in such a manner has been, at least so far, satisfactory.
Vicksburg, Feb. 5, 1938.

PUBLIC HEALTH

Felix J. Underwood, Jackson

Puerperal Sepsis and Its Prevention.—Hare, Ronald: Canadian Public Health Journal, 11 (Nov.) 1937. In recent years many statistical studies inquiring into the causes of maternal mortality and morbidity have been made. A summary of four of these studies, two in America and two in Great Britain, involving 11,104 deaths in connection with child-bearing, are mutually confirmatory and indicate that the three principal causes of death at child-birth are puerperal sepsis (27.1%), puerperal toxaemias (11.0%) and haemorrhage (10.4%).

A variety of organisms may cause the minor degrees of infection which follow child-birth. Certainly no organism is predominant in uterine swabs taken for bacteriological examination but by far the most important of the organisms causing puerperal infections are the haemolytic streptococci which accounted for 39 per cent of the severe cases and 69 per cent of the deaths which are due to infection. Second in importance are the anaerobic streptococci which are responsible for 29 per cent of the cases and 8 per cent of the deaths. Third in order of importance are the coliform bacilli, responsible primarily for pyelitis and cystitis which comprise about 20 per cent of the pyrexias with child-birth and also for a proportion of uterine infections.

There is now an overwhelming body of evidence showing that the haemolytic streptococci causing puerperal infections are of exogenous origin and derived in most instances from the nasopharynx of an attendant at the time of delivery, occasionally from the patient's own nasopharynx and, more rarely, infection of some kind in the home. On the other hand, the anaerobic streptococci are probably of endogenous origin derived from organisms present in the vagina before delivery which are introduced into the uterine cavity by intrauterine manipulation during delivery. The coliform infections are almost certainly derived from the bowel.

Each of the possible routes may, however, be blocked but this is a problem in obstetrical technique. The cardinal points in such technique should be: (1) avoidance of delivery in a contaminated atmosphere such as a home or hospital in which any type of infection is being nursed; (2) abstension from midwifery when the obstetrician or nurse is suffering from a nasopharyngeal infection of any sort; (3) prevention of droplet infection from the nasopharynx of carriers to hands or vulva by adequate masking and, probably of more value, the avoidance of talking during delivery; (4) scrupulous attention to the toilet of the hands, the wearing of gloves, and an adequate antiseptic technique; and (5) warning the patient against touching the vulva.

It must be further pointed out that infection may not necessarily occur at the time of delivery but some time later, for which reason visitors and the personnel of the lying-in ward should also be subjected to the same discipline as the personnel of the delivery room. J. A. M.

Tapeworm Infestations in the Southern United States.—Sunkes, E. J. Sellers, T. F.: American Journal of Public Health, September, 1937. In the 927,625 fecal examinations on which this report is based, positive findings for all types of tapeworm total 8,085, making a mean incidence of 0.87 per cent. The incidence in Mississippi was 0.54 per cent. Of the 7,249 positive tapeworm findings, 98.6 per cent were the dwarf tapeworm (Hymenolepis nana). The dwarf tapeworm is much more easily acquired than are the other tapeworm infestation. This parasite apparently does not require an intermediate host as do the other tapeworms, and human infestation is acquired "as a result of hand-to-mouth transmission of eggs which are in the infective stage when passed from the body."

The number of other types of tapeworm found in this study were as follows:

Taenia saginata (Beef tapeworm)	58
Taenia solium (Pork tapeworm)	8
Hymenolepis diminuta (Rat tapeworm)	32
Diphyllobothrium latum (Fish tapeworm)	1
Dipylidium caninum (Dog tapeworm)	1

—J. A. M.

Epidemic Diarrhea of the New-Born.—Frant, Samuel and Abramson, Harold: American J. of Public Health, 28:1 (January) 1938. In the summer of 1934 an unusual number of deaths were taking place among normally delivered new-born babies in the nurseries of one of the general hospitals in New York. The infants were succumbing to a fulminating form of intestinal intoxication whose clinical cause could not be stemmed by recognized methods of therapy. When the outbreak finally abated, 72 babies had been attacked and 32 had died.

Since that time there have been 23 similar outbreaks involving 711 cases in 15 New York hospitals giving maternity care. The case fatality was 47.0 per cent.

Epidemiologically, this disease involves specifically new-born babies during the first three or four weeks of life. There are no sex differences. Unlike "summer diarrhea" there is little variation in morbidity and mortality from one season to another. The rates are lowest during the fall and highest during the winter. No differences are evident in the incidence of the disease among either breast-fed or artifically-fed infants. The apparent mode of spread is from baby to baby lying in adjacent bassinets. A short interval-free or latent period may intervene from the onset of the first case to be followed by a rapid succession of cases in close sequence. Despite extensive bacteriological studies of food, water, and equipment, and of nasal and pharyneal secretions and stool specimens, the etiology of the disease and its point of origin were not revealed, nor could the inciting agent be isolated from the respiratory or gastrointestinal tracts of infected babies. Autopsy studies and tissue virus cultures likewise failed to reveal the etiological factor.

In order to control this disease in the newborn it is recommended that, in the event of an outbreak in a hospital, all infected nurseries should be immediately closed and maternity services suspended. All hospital techniques should be based on the principles of surgical asepsis and aseptic nursing and medical care, such as is employed in contagious disease hospitals.—J. A. M.

SURGERY

A. Street, Vicksburg

Platelet-Reducing Substance in the Spleen of Thrombocytopenic Purpura.—Troland, C. E. and Lee, F. C., Bull. of the Johns Hopkins Hosp., 62, 85. The authors give a preliminary report of the result of injecting extracts of freshly removed spleens from cases of thrombocytopenic purpura on the blood platelet count of normal rabbits. So far, extracts from spleens removed from three cases have been studied. Injection of the extract into the rabbit resulted in prompt reduction of the platelet count by as much as 90%. Injection of small amounts would cause almost as much fall as that resulting from large amounts.

Extracts from normal spleen and other tissues, and from a spleen showing Banti's disease, and from the spleen of a patient suffering with hemolytic jaundice, were used as controls. Rabbits receiving the control extracts, showed no decrease in the number of platelets. This work seems to show that the spleen in thrombocytopenic purpura contains a substance which causes marked thrombocytopenia.

Comment: The clinical course of cases of thrombocytopenic purpura is subject to wide variation. Some cases are fulminating and rapidly fatal. Other cases are mild and recover with medical treatment and may not re-occur for years. There is some question as to whether these groups are really the same disease.

Wintrobe has recently analyzed the clinical findings and tabulated the results of medical and surgical treatment in 62 cases of thrombocytopenic purpura. Cases treated medically are very prone to relapse. Cases treated surgically are much less prone to relapse; but surgical risk was high.

The reviewer occasionally observes a patient on which he did a splenectomy for thrombocytopenic purpura, with exsanguinating hemorrhages at puberty, 14 years ago. This patient obtained prompt relief, the platelet count promptly went up following operation, dropped shortly afterward, and then went back to a level below normal, but not a critical level. However, there was no relapse, and the patient has gone through normal pregnancies and normal labors.

It seems that the most practical treatment for thrombocytopenic purpura is splenectomy, if a state of operability can be attained. Repeated transfusion and pre-operative roentgen therapy to the spleen are valuable. Operation in the presence of extensive bleeding involves great risk; but the hazard during remission of bleeding is not great.

Minot, of Boston, calls attention to difficulty in diagnosis, and states that purpura hemorrhagica may appear as a symptom of other conditions, such as widespread cancer, ingestion of certain drugs, such as sedormid and of quinine and, occasionally, from food allergy. Minot also mentions possible difficulty in differentiating purpura hemorrhagica from myelosclerosis.

It is possible that further study of the thrombocytopenic properties of substances obtained from spleens of this group of cases, will be of value in more accurate classification and diagnosis.

The Use and Interpretation of Tests For Liver Function.—Snell, A. M. and McGath, T. B., J. A. M. A. 110, 167, (January 15) 1938. The authors, reviewing the development of tests for liver function, point out that no one test can be depended on alone or even used in all types of cases; but show the usefulness of various tests in different disease conditions involving the liver, in conjunction with careful clinical observation and analysis.

Serum Bilirubin. Determination of the value for serum bilirubin provides useful information regarding liver function. Increase of serum bilirubin may result from three general types of disturbances, which may act singly but, more often, in combination: (1) those in which bilirubin is produced in excess of the capacity of the liver to excrete it (hemolytic jaundice); (2) those in which the rate of production is not increased, but because of toxic or infectious injury to liver cells and finer bile passages, bilirubin accumulates in the blood stream (hepatogenous jaundice); (3) those in which obstruction to the larger bile passages cause a reflux of bilirubin into the blood (obstructive jaundice). Bilirubin circulating in the blood in hemolytic jaundice has not been acted on by the liver cells and, therefore, gives an indirect van den Bergh reaction. Purely hemolytic icterus will rarely give rise to an increase in indirect reacting bilirubin to more than 4 mg.% and, if the rise is higher than 4 mg., it may be safely assumed that the function of the cells of the liver has been impaired. If the serum shows the presence of van den Bergh direct reacting bilirubin, the indication is that injury of the liver and rupture of the bile capillaries has occurred, and that this bilirubin which has been taken out of the blood serum by the liver is being re-absorbed back into the circulation. One may expect a direct van den Bergh reaction in about 80% or more of cases in which there is even moderate degree of hepatic damage, and in not more than 1% of all cases with absence of liver damage. Direct reacting bilirubin is present in the serum under the following conditions: various types of toxic or infectious jaundice; chronic parenchymatous disease of the liver; mechanical obstruction of bile ducts by tumor, stone, cicatrix, infectious lesions or extrinsic pressure of tumors, granulomas, cysts and other lesions. Very high values for serum bilirubin (30 to 50 mg.%) are found in acute severe hepatogenous forms of jaundice and in neoplastic biliary obstructions. Rising values for serum bilirubin are associated with diminished function and falling values with improving function of the liver.

Some estimation of liver function can be obtained by tests based on excretion of galactose. This may be useful in jaundice cases, in which the bromsulphalein cannot be used.

Of the dye tests for excretory function of the liver, the bromsulphalein seems to be the most generally satisfactory and is very simple.

The occurrence of hypochromic anemia commonly accompanies portal cirrhosis and may be present in other types of liver injury. Such an anemia may act as confirmatory evidence of the presence of liver injury.

Other tests are mentioned, but the above seem to be the most useful and practical.

Comment: Information regarding liver function is of considerable value to us when determining operability of surgical cases. Judd called attention to high surgical mortality associated with rising serum bilirubin values, in spite of pre-operative preparation by intravenous administration of calcium and glucose. In serious obstructive jaundice, if it is possible to continue preparatory treatment until a period of falling bilirubin values, operative risk should be less. Other liver function tests are coming into more general use, especially on account of their value in differential diagnosis.

It seems to the author that the classification of serum bilirubin disturbances used by Aschoff is the most easily understood. Aschoff's classification is as follows: (1) The hyperfunctional type, in which the excretory function of the liver is normal, but bilirubin production greater than the normal liver will take care of. This is the case in hemolytic jaundice. Bilirubin, in this instance, would be van den Bergh indirect reacting and the jaundice acholuric. (2) Retentional type, in which bilirubin is produced in normal quantity only, but excess is present in the serum because of inadequate function of the liver cells. A perfect example of this is the hepatectomized animal. Bilirubin, in this instance, would be indirect reacting. (3) Resorptional. In this group, bilirubin formation is normal, and it is taken by the circulation to the liver cells and acted on, but, due to obstruction of the small or large bile passages, it is returned from the liver to the circulation. This is true in obstructive jaundice and, in such cases, the bilirubin is direct reacting.

We rarely encounter pure examples of those groups in clinical practice, but the classification is useful, and patients may be classified as they fall more or less predominantly, into one or another of the groups.

Vicksburg, Feb. 5, 1938.

PATHOLOGY AND CLINICAL PATHOLOGY

E. T. White, Greenville

Simple Atrophy of the Liver.—Sprunt, Douglas H., Arch. Path., 24: 738. MacNider's experiments show that hepatic epithelium following severe injury regenerates into an atypical form characterized by flattened cells arranged in cords that do not run toward the central vein as in the normal organ. The sinusoids of the liver are greatly enlarged. There is no increase in connective tissue. This type of epithelium is functionally effective and is much more resistant to hepatoxic agents than normal liver cells. MacNider found this liver atrophy present in 21 of 92 dogs over 8 years old. Those senile animals with hepatic cells of normal type gave no evidence of resistance to chloroform.

Sprunt studied human livers in 387 cases and found 11 with cells similar to changes described by MacNider. Olintsky has shown that young rats are more susceptible than older ones to nasal innoculation of virus which may be due to this change in the liver cells.

It may be that liver atrophy is a protective reaction of the host against hepatoxic agents.

The Oelgoetz Test for Blood Serum Enzmyes.—Ragland, Dallas C., Clin. Med. & Surg., Jan. 1938. This is a test for demonstrating the enzyme content of blood serum. The test is performed by determining the amount of serum required to decolorize 1 c.c. of 5% suspension of starch cells in distilled water to which 4 drops of Lugol's solution are added for each ounce when incubated in dry incubator at 37 degrees C. for 24 hours. A normal serum contains sufficient pancreatic enzymes in 0.2 c.c. to decolorize 1 c.c. of starch reagent, but in many allergic and toxic states it may require as much as 0.6 c.c. serum to decolorize the reagent. He reports remarkable clinical improvement in the cases giving a low serum enzyme index by giving pancreas therapy and especially in those that require as much as 0.6 c.c. serum to decolorize the reagent. Where there is only a slight reduction of the serum enzyme he found that it may not be due to a deficiency of pancreatic enzymes but to an inactive enzyme and that the activity may be stimulated by the administration of a catalyic tagent as dilute hydrochloric acid or vitamin B. At the conclusion he gives several interesting case reports. Greenville, Feb. 1, 1938.

ORTHOPEDICS

T. H. Blake, Jackson

Comminuted Fractures of the Os Calcis.—Spiers, H. W., Los Angeles, Cal., J. A. M. A. Jan. 1, 1937. The author reports on the treatment of 36 cases of fractures of the os calcis. Of these, 28 cases were followed thru the entire treatment in detail. The type of treatment used is that as outlined by Boehler. There are four points of emphasis:

1. Break up impaction of fragments (this is not of such great importance if patient is seen immediately following injury).
2. Place the pin for traction in the os calcis precisely as indicated in the x-ray to obtain proper leverage.
3. Very long freedom from weight bearing is essential—12 to 14 weeks—and there are no short cuts to save time.
4. Proper support for the arch when weight bearing is begun.

This is a very important paper as it outlines a very excellent treatment for fractures of the heel. The fractures are very frequently overlooked, and when recognized are very frequently undertreated. In a high per cent of these cases the fracture line enters the subastragalar joint and after healing has taken place a painful subastragalar arthritis results. A number of these require a fusion of this joint to prevent pain.

Physical Therapy in Infantile Paralysis.—Ober, R. F., Boston. The author recognized the three stages of poliomyelitis: 1. The acute; 2. Convalescent; 3. The residual stage to ten weeks. During this stage the extremities should be held in the best positions for future use. Heat may be used to add to patients' comfort. **Massage, manipulation, electrical stimulation and active use of the involved part should be absolutely prohibited.** The second stage begins in eight to ten weeks after onset. Massage, active and passive motions are then to be encouraged, but never to the stage of fatigue. Deformity must be prevented by braces. There is an improvement in muscle power up to two years following the illness. The third stage then follows and it is then that surgery is indicated to improve the conditions of deformity and instability.

The Nicola Operation for Recurrent Dislocation of the Shoulder.—Koster, Harry, Brooklyn, N. Y., Arch. Surg., Jan., 138. A short article describing the technique of this operation for the permanent repair of recurrent or chronic dislocations of the shoulder. The author mentions the importance of placing the drill hole through the head of the humerus in the proper place.

This is an excellent operation and the easiest to perform of all the plastic procedures to correct this disorder. Good results are usually obtained.

The abstractor has recently obtained a good result following a chronic recurring dislocation of seven years duration.

PEDIATRICS

Harvey F. Garrison, Jackson

Factors Influencing the Course of Tuberculosis Infection in Young Children.—Brailey, Miriam: American Review of Tuberculosis 36: 347 (Sept.) 1937. 1. A series of 223 children, of whom 91 were white, and 132 were colered, found to be tuberculin-positive before two years of age, have been followed in the Harriet Lane Tuberculosis Clinic for periods ranging from one to eight years. They afford material for a study of the factors influencing prognosis in the tuberculosis of infancy. 2. They can be divided into 94 who showed parenchymal involvement at the time infection was discovered and 129 who showed no definite parenchymal lesion at initial x-ray examination. Thirty-five, somewhat more than one-third of those with pulmonary lesions, were ill and presented signs of disease such that a diagnosis could usually have been made by ordinary clinical means. The remainder gave no indication of their infection, and diagnosis could not have been made without the use of tuberculin and x-rays. 3. Over an eight year period the mortality from tuberculosis was three times greater in colored children (34%) than in white children (10%). 4. The first year of known infection was the most dangerous. More than three-fourths of the mortality in white children, and one-half of the mortality in the colored fell within the first year of observation subsequent to the discovery of the infection. 5. Children admitted with parenchymal lesions suffered a mortality of 28% during the first year of clinic observations, the rates being similar for white and colored. No deaths occurred among the white children of this group after the first year of observation, but additional deaths raised the eight year mortality for the colored to 47%. 6. As to children presenting no x-ray evidence of parenchymal involvement on admission, no deaths occurred among the white children during the first year of observation, but mortality for the colored was 7%. At the end of eight years of observation, the mortality for the white children, was less than 2% for the colored 12%. 7. Although the immediate cause of death was almost always tuberculous meningitis or generalized tuberculosis, this hazard was much greater for children admitted with parenchymal lesions than for those whose initial x-ray showed no such involvement. The colored, both on admission and throughout the period of observation, displayed parenchymal lesions much more frequently than the white, and this appears to account for their higher mortality. 8. In both white and colered children, mortality from tuberculosis has been nearly twice as high for infants known to be infected before six months of age, than for those whose infection was discovered between the ages of six months and two years. 9. In 77% of the white and 64% of the colored children, of this study there was intrafamilial contact with a proved sputum-positive case. The children with known exposure did not show a mortality significantly higher than the group for whom no such contact could be found.

Chemical Conjunctivitis of the New-Born.—Glover, Lewis Pellman: Penn. Med. J. (Sept.) 1937. The author gives a splendid description and many beneficial suggestions in the management of this troublesome condition. This conjunctivitis of the new-born is an irritation occurring from the second to the tenth day after delivery, coming from some silver preparation used to prevent ophthalmia neonatorum. He suggested that many of the irritations of severe conjunctivitis, are due to strong silver preparations. It is well known that the strength of silver nitrate, argyrol and such increases with age. He suggested the use of freshly prepared silver nitrate, followed by irrigations with saline, rather than the use of ampoules, which may contain an old solution.

In the early treatment of mild cases, he suggests the use of boric acid solution irrigations, and weak solutions of zinc, and certainly no other chemicals, such as argyrol should be used.

In the chronic cases, he scrubbed the palpebral conjunctiva with boroglyceride on an applicator until it bled, then used a weak solution of zinc three to four times a day, preceded by boric acid irrigations. Cure was effected in all of his cases.

RADIOLOGY AND ROENTGENOLOGY

J. A. Beals, Greenville

Radiation Treatment of Infections.—The notable value of roentgen ray (or radium) treatment in various acute and chronic infections, is generally too little known. This is probably because other methods of value have been used for so long as to become conventional; also because the equipment for radiation treatment is often not available except through consultation; another factor may be a rather groundless fear of "burns" or a subconscious association of all x-ray treatment with malignancy and the severe reactions incident to treating cancer. Such fears are unfounded, however, for the doses of x-ray or radium that are useful are generally far less than those which produce any perceptible effect on normal tissues. The dangers, if any, lie in the over-enthusiasm of the tyro who may assume that if a little does good a big one will do better.

Perhaps the leading American advocate of radiation treatment of infections in conjunction with the usual surgical and medical measures, or alone in some cases, has been Dr. A. V. Desjardins, who heads the department of radiology at the Mayo Clinic. In the October, 1937, Journal of Radiology, this author summarizes the experience of nearly all who have given radiation a trial.

Acute inflammatory processes receive a single treatment of ½ to ¼ of an erythema dose of roentgen rays. Generally the more acute the process is the smaller the dose. Occasionally a second small dose may be of benefit on the following day.

Pyogenic infections in which irradiation of this type has an established value are furuncle, carbuncle, abscess, cellulitis and phlegmon, onychia and perionychia, acute adenitis, and erysipelas. Other conditions in which irradiation appears to be of value, but in which the evidence is not yet so conclusive, are otitis and mastoiditis, pelvic infection, osteomyelitis, and gas bacillus infection. When irradiated early, many pyogenic processes do not suppurate and pain is relieved. When suppuration is present at the time of treatment the suppurative process is hastened and the duration more or less shortened. In a minor proportion of cases the treatment has little or no effect.

For chronic inflammatory processes the dose of x-rays must be somewhat larger, ½ to ¾ of an erythema dose, repeated at intervals of one to four weeks for some time. The advantageous voltage to use is 120 to 140 K.V., with filtration of 4 to 6 mm. aluminum. Care must be exercised not to repeat such treatment too often or at too close intervals.

The author considers that tubercular adenitis and peritonitis and tuberculosis of the cornea and iris are especially amenable to irradiation treatment. The same is true of many cases of trachoma. He mentions also the actinomycotic lesions of the skin and intestine. In chronic infections arthritis which is in an active stage with pain and swelling are often relieved with return of function.

This author very conservatively avoids recommending irradiation for a multitude of other acute and chronic conditions, for nearly every one of which someone has reported varying degrees of successful treatment by irradiation.

The larger part of his article is devoted to a discussion of the mode of action of radiation on inflammatory tissue. Briefly the effect seems to depend upon the local destruction of leukocytes and the liberation from them of certain enzymes, together with other biologic effects which are not well understood or fully admitted.

(Those interested will find a special article devoted to this subject by Desjardins in the Journal A. M. A. for December 21 and 28, 1935).

Roentgen Treatment of Infection Due to Human Bite. Infection from human bite, in which the Vincent organism is the noxious agent, is frequently prolonged, disabling, accompanied by severe toxemia, and may be fatal. Such bite infections often involve the hand as a result of a blow of the fist on the mouth.

The late W. F. Manges with R. M. Smith, of Philadelphia (Amer. J. Roentgenol. Nov., 1937), report nine cases of bite infection treated by x-ray, all with favorable results. One with foul drainage two months after injury had the drainage stopped five days after treatment. The other cases were treated within a few days after infection. Pain and cellulitis subsided in all cases, thus shortening convalesence to one or two weeks.

The treatment factors were using large areas; 135 K. V.; 4 mm. aluminum filter; distance 12 inches; dose 50 to 100 r (measured in air). This dose was repeated at intervals of one day to one week, according to need (but not exceeding skin tolerance).

The authors, in a separate article in the same journal, review the literature on experimental roentgen therapy of infections, and end with the conviction that "clinical data are of much greater importance to us than experimental data."

A clinical experience of seventeen years, coupled with a high estimate of the value of radiation therapy for many inflammatory conditions, is readily available in the article of F. M. Hodges and R. A. Berger, of Richmond, Virginia, in the Journal A. M. A., Nov. 7, 1936.

Greenville, Dec. 18, 1937.

NEUROPSYCHIATRY

Charles D. Mitchell, Whitfield

Theelin Therapy in the Psychoses.—Ault, C. C., Hoctor, Emmett F., and Werner, August A., J. A. M. A., Vol. 109. This article illustrates the author's question of shortening the time necessary for involution melancholia cases in the hospital, and also gives the basis whereby this type of individual in the mild cases may be treated at home.

This series of cases was run at Missouri State Hospital, No. 4. Their methods of administration and treatment is to give theelin in large doses. During the first month of treatment from 30,000 to 40,000 international units of theelin in oil were injected and then the dosage was reduced to conform to the needs of the individual patient. They find that these large doses give much quicker results than the old treatment of giving smaller doses, or an average of 5,000 international units per month. The average hospitalization of involutional melancholia patients with the small doses of theelin show about six months, but in the large doses of theelin they find that it is rare to have cases of true involutional melancholia require more than three months hospitalization.

The consensus of opinion is that involutional melancholia constitutes between 3 and 4 per cent of all mental disease. However, it is a well known fact that many women at the climacteric suffer from mild to marked mental aberrations with concomitant physical and mental handicaps, causing a prolonged convalescence of months to years, but for obvious reasons they are never institutionalized. Therefore, administration of estrogenic substances should prove a boon to these women, a relief to their families and an economic benefit to the nation.

A summary of fourteen cases treated with large doses of from 30,000 to 40,000 international units of theelin show: 11 cases of marked improvement; 1 case of moderate improvement; and 2 cases of slight improvement.

The duration of treatment in the hospital ranges from two weeks to forty-two weeks; some of these cases being old patients who had been in the hospital for quite some length of time.

Theelin therapy in schizophrenic patients during the climacteric also brings a great deal of improvement and causes patients to be much quieter and more easily cared for in the institution. The number of patients in this group who were able to leave the hospital was not as great as in the true involutional melancholia; however, enough benefit was found in each case to make the treatment worth while. In a series of 22 cases only two of the cases failed to show any improvement whatever.

Theelin therapy was also used in cerebral arteriosclerosis in the climacteric. In a series of fifteen patients, 4 patients showed marked improvement, 5 cases showed moderate improvement, 4 cases showed slight improvement and only 2 cases showed no improvement. All of these patients were relieved of their intense depression and nihilistic trends.

Conclusions:

1. For all practical purposes theelin seems to be specific in involutional melancholia, the apparent recovery rate being 92 per cent in our series of cases.

2. Massive doses of from 30,000 to 40,000 international units for the first month of treatment accelerate the recovery rate in involutional melancholia, the hospitalization being reduced to an average period of three months.

3. Theelin is indicated for any woman during the climacteric having disturbing mental aberrations, whether mild or severe.

4. Theelin therapy is efficacious in relieving distressing symptoms of the climacteric in other types of psychoses, many patients being improved to the extent of recovery.

Comment:

This series of cases is very interesting in that it gives methods of treatment whereby mild involutional cases may be treated at home, and with early instigation of massive doses of theelin the danger of hospitalization can be avoided.

In the Mississippi State Hospital, Whitfield, we are now using somewhat similar treatment on involutional patients and have been receiving very gratifying results. The danger of suicide in this type of patient is very great, and we find that with the administration of large doses of theelin during the first two weeks of hospitalization all ideas of self-destruction have usually disappeared. The incidence of suicide in this type of case has been greatly reduced under this type of treatment. All of our patients show some degree of improvement; the majority of them being able to leave the hospital within a relatively short length of time to continue their theelin therapy at home.

Whitfield, F. A. Donaldson
Feb. 1, 1938.

HOSPITALS

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION, Ninth Annual Session, Jackson, April 18, 1938.

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary: First Friday, each month, 6:30 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital: Third Wednesday, each month, 7:30 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12:00 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p. m.

George C. Hixon Memorial Hospital: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium: Third Thursday, each month, 8:00 p. m.

Greenwood-Leflore Hospital: First Thursday, each month 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital: Second Thursday, each month, 7:00 p. m.

Houston Hospital: Fourth Friday, each month, 7:00 p. m.

Ivy Hospital: First Monday, each month, at 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p.m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p.m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 8:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.

McGee General Hospital: Twenty-fifth each month, 6:00 p. m.

Mayes Hospital: First Monday, each month, 2:30 p. m.

McComb City Hospital: First Tuesday, each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday, each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Hospital: Second Thursday, each month.

Northeast Mississippi Hospital: First Monday, each month, 7:00 p. m.

Oktibbeha Hospital: Last Thursday, each month, 7:30 p. m.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veteran's Hospital, Gulfport: Every Monday, Tuesday, Wednesday, and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month, 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

ATTALA COUNTY HOSPITAL

The Attala County Hospital which has been under construction for the past 18 months by the W. P. A. is now nearing completion. Upon the completion of the county-wide drive for funds for hospital equipment, the long felt need for an institution of this kind in this section of the country will be fulfilled.

Kosciusko, John W. Pender,
Jan. 6, 1938. County Editor.

EAST MISSISSIPPI STATE HOSPITAL

The East Mississippi State Hospital has been functioning rather smoothly with the exception of some two hundred cases of influenza among the patients and employees; also several cases of pneumonia.

This hospital has a staff meeting once a day, excluding Sunday, to report the conditions of the patients and for diagnostic purposes.

Dr. Tatum was indisposed a few days the first of the month.

Dr. Wm. J. Cavanaugh was away from the hospital a few days, visiting in Louisiana, and reported a nice trip.

Dr. R. L. Rhymes has been added to our staff of physicians. He has in charge the hospital and tubercular departments. We consider him a great asset to our hospital.

Mrs. Wm. J. Cavanaugh was ill for a few days during the month.

Mrs. J. S. Hickman has improved and is up and about from her long continued illness, and is doing better than she has for three or four years.

Meridian, J. S. Hickman,
Feb. 1, 1938. Superintendent

NORTH MISSISSIPPI COMMUNITY HOSPITAL

An institute for the members of the nursing staff of the North Mississippi Community Hospital, Tupelo, and the nurses residing in the hospital area was conducted in the assembly room and the nurses' home of the hospital by Mrs. Priscilla W. Halpert, New Orleans, January 19, 29 and 21. Mrs. Halpert is a graduate of the Yale School of Nursing and served for some time as professor of nursing art. The Institute was well attended. The following program was rendered:

January 19.—**Pediatric Nursing.**

1. Care of children with medical conditions. 2:00 p. m.
2. Care of children with surgical and orthopedic conditions. 3:00 p. m.
3. Tea for Mrs. Halpert—Nurses' Home. 4:30 to 6:00 p. m.
4. Teaching health habits to children. 7:15 p. m.

January 20.—**Communicable Disease Nursing.**

1. General care of patients with communicable diseases. 2:00 p. m.

2. Demonstration of isolation technique. 3:15 p. m.

3. Responsibility of the nurse for measures of disease control. 7:15 p. m.

January 21.—**Personal and Professional Adjustments.**

1. Hospital nursing as a cooperative activity. 2:00 p. m.

2. Opportunities of the nurse for advancement in her profession. 3:15 p. m.

3. Physical and mental health for the nurse. 7:15 p. m.

Tupelo, Helen Branham,
February 4, 1938. Superintendent

VICKSBURG HOSPITAL STAFF MEETING

1. The meeting was called to order, Thursday, January 13, at the usual hour by the president, Dr. I. C. Knox, with the staff and several guests in attendance.

2. Routine business was transacted, mortalities occurring during the previous month were discussed, and the following scientific program was presented:

(a) Report of Vital Statistics for the Past Year.—Dr. F. M. Smith.
(b) Report of Eye, Ear, Nose and Throat Section, Southern Medical Association Meeting, New Orleans.—Dr. E. H. Jones.
(b) Auricular Flutter: Case Report.—Dr. W. K. Purks.

3. The meeting was adjourned and lunch was served.

Vicksburg, W. H. Parsons.
February 9, 1938.

CASE REPORT: AURICULAR FLUTTER

Mr. F. J. M., age 56 years, was admitted to the hospital on June 17, 1937. His complaints were chiefly those referable to acute and chronic alcoholism and need not be detailed here. A careful review of his cardiorespiratory history indicated no abnormality.

I first saw him two days after admission, when it was observed that his pulse rate had suddenly increased to 160 per minute. Examination showed his blood pressure to be 130/90. The heart was not enlarged, the heart action was very rapid and auscultation indicated the tick-tack mechanical regularity usually observed with the various forms of paroxysmal tachycardia. The most likely diagnosis in view of the onset and rate seemed to be paroxysmal auricular tachycardia. Therefore, carotid sinus pressure was tried in an effort to restore the normal rhythm. Right carotid pressure produced no change in the heart rate. Left carotid pressure, however, resulted in an immediate slowing of the heart but the attack was not abolished, the rapid beating at a rate of 160 per minute returning as soon as pressure was released. This phenomenon, even without the aid of the electrocardiogram, proved a diagnosis of auricular flutter.

In any case presenting evidence of a rapid, regular heart action, there are chiefly five possible explanations. First, we may be dealing with a simple sinus tachycardia, such as accompanies febrile states, hyperthyroidism, anemia, or some other systemic disease. Such a tachycardia, however, is not paroxysmal in onset and rarely attains a rate as high as 150 or 160 per minute, and on auscultation it does not show the precise fixation of rate that accompanies the forms of paroxysmal rapid heart action. The differential diagnosis here is usually simple. Secondly, we may be dealing with paroxysmal auricular tachycardia, which shows a rate usually in excess of 160. Also this form of rapid heart action is often completely abolished by carotid sinus pressure or other means of stimulation of the parasympathetic system, but such stimulation never results in a temporary and incomplete slowing, such as was demonstrated in the above case. Thirdly, we should consider ventricular tachycardia. This disorder presents the same mechanical regularity as do the other forms of paroxysmal rapid heart action, but on careful auscultation, the difference in intensity of the first sound can usually be demonstrated whenever the auricular and ventricular beats happen to fall in their normal sequence. Still further, this form of rapid heart action is not influenced by carotid sinus pressure. Fourthly, we must bear in mind the possibility of paroxysmal nodal tachycardia, a relatively rare form of rapid heart action, with characteristics coinciding closely with those of ventricular tachycardia. Fifth, and lastly, we must consider auricular flutter, which may present a perfectly regular and rapid rate, varying from 140 upward, though usually the rate will lie between 140 and 180, being the representation of a two-to-one heart block with the auricles beating at rates from 300 to 400 per minute. Carotid sinus pressure under such circumstances will often cause a temporary slowing of the heart rate without abolishing the mechanism. This phenomenon occurs with none of the other tachycardias, and, in itself, is diagnostic of auricular flutter.

The electrocardiograms on the above case illustrate the mechanism whereby carotid sinus pressure produces the slowing of the heart rate. And this particular patient also may illustrate the desirability of trying carotid sinus pressure in any patient who presents a rapid heart action for otherwise it would have been impossible to state in this case whether or not we were dealing with auricular flutter or some other form of paroxysmal rapid heart action. This differentiation could not have been made without carotid pressure even with the electrocardiogram, because it so happens that with a precise two-to-one block all auricular impulses were buried. The latter tracings on this patient are shown only to illustrate the effect of digitalis in converting flutter into fibrillations, which, on withdrawal of digitalis, returns to a normal sinus rhythm.

VICKSBURG SANITARIUM

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held Thursday, Feb. 10, and after a supper served at 6:30 p. m., was called to order by the president, Dr. George M. Street, with thirteen members and three guests present.

Reports from the Records Department and Anaysis of the Work of the Hospital.

Special Case Reports:

1. Lung Abscess.—Dr. J. A. K. Birchett, Jr.

Discussed by Drs. Geo. Street, A. Street, R. A. Street, Jr., and W. E. Johnston. Dr. Birchett closed.

2. Deficiency Disturbances in Congestive Heart Failure.—Dr. L. J. Clark (Read by Dr. George M. Street).

Discussed by Drs. Geo. Street, A. Street and F. M. Smith.

3. Purpura Hemorrhagica In A Four Months Old Infant.—Dr. G. C. Jarratt.

Discussed by Drs. A. Street, L. S. Lippincott, J. A. K. Birchett, Jr.

Demonstration of Selected Radiographic Studies—Extosis of the skull; Spontaneous Pneumothorax; Pulmonary Tuberculosis.

Three Minute Reports of the Literature of The Month:

1. Dr. A. Street— Liver Function Tests and Their Value.

2. Dr. L. S. Lippincott— Brachial Neuritis Resulting from Serum Treatment.

Election of officers of staff for year 1938:
President— Dr. L. S. Lippincott,
Vice-President— Dr. J. A. K. Birchett, Jr.,
Secretary— Dr. R. A. Street, Jr.

Dr. Alston Callahan, Vicksburg was elected as a member of the Courtesy Staff of the Vicksburg Sanitarium.

The next meeting of the staff will be held, Thursday, March 10.

ABSTRACT: LUNG ABSCESS

J. A. K. Birchett, Jr., M.D.

Case I

Patient.—White, male, age 40, admitted to Sanitarium Sept. 13, 1937.

Past History.—Had rigor four weeks ago; five days later began with a pain in his right lower chest. Had high fever and confined to bed for two weeks, during which time he expectorated much sputum which had a very dark color, suggestive of old blood. All the time he was in bed, he suffered with sweating spells and temperature at times as high as 104°F. with nausea and vomiting. Has lost 15 pounds in weight. No serious illnesses since he had the 'flu' in 1918. Has had malaria several times in his life. No venereal diseases; no operations; no tuberculosis in family; nor has he lived with anybody who had tuberculosis.

Physical Examination.—Well developed, middle age, temperature 100°F., pulse 90, respiration 18, blood pressure 120/90. Some rales and dullness over the right lung in the region of the middle lobe. The heart was normal, except for increased rate. Abdomen: no masses or areas of tenderness, genito-urinary structures negative. X-ray examination shows an opacity in the right lung commensurate with a lung abscess.

Clinical Laboratory.—Urine negative, except for rare granular casts and few fresh blood cells. Serology: Wassermann negative; Kline and Young, 2-plus, Kahn negative; Eagle flocculation negative. Blood: erythrocytes 5,020,000; total leukocytes 12,000; differential: small lymphocytes 17, neutrophils, mature, 68, bands 15.

Procedure.—Sputum examination did not show tubercle bacilli but many pus cells. Diagnosis: Lung Abscess. Patient was put to bed and given several small pneumothoraces with gradual compression of the lung under very moderate pressure, followed by expectoration of large quantities of foul-smelling purulent material. He made uneventful progress. His condition improved so that, Sept. 25, 12 days after admission, he was permitted to go home to remain there in bed and continue general regime of restorative treatment, such as diet, rest, fresh air, etc. Oct. 9, patient was re-admitted to the Sanitarium in extremis. He was complaining of severe pain in the right chest and states that two nights ago he stepped into the yard to chop some firewood and, after this severe exertion, the severe pain developed in his lung and he began to cough so much and suffered so much discomfort that he decided he had better come back to the hospital. On admission, we found that his condition was quite acute, temperature 101°F., respiration 30, pulse 120. He was immediately put to bed and given morphin and atropine. The examination of the patient showed hyper-resonance over the right lung with well-developed pneumothorax showing in the x-ray. Both lungs were filled with rales, suggestive of a bronchial pneumonia. Patient was accorded treatment for pneumonia and, forty-eight hours after admission, showed improvement. However, that night, while sitting up in bed, being elevated on a back rest, there was a sudden gush of foul smelling purulent material with severe dyspnoea, and patient died shortly thereafter of probable secondary rupture of lung abscess, associated with an acute bronchial pneumonia.

CASE II

Patient.—Colored, female, age 60, housewife.

Past History.—Fever and pain in the left chest. Onset several days ago, which she thought was the 'flu. Getting worse daily, mostly with pain in the left chest and forced respiration. Has been having high fever and the last two days has been expectorating blood.

Past History.—Several normal deliveries, no serious illnesses.

Physical Examination.—Well-developed and nourished negro female of the mulatto type. General examination was not remarkable, except for dullness over the lower left chest with distant breathing and rales. Heart sounds rapid and rather labored.

Clinical Laboratory.—Urine, normal. Hemoglobin 82%; leukocytes 18,200; differential: small lymphocytes 16, large lymphocytes 5, neutrophils, mature 38, bands 41. Sputum showed no tubercle bacilli, but much pus and Type I pneumococci. Wassermann negative. X-ray of thorax showed density lower left which was diagnosed, roentgenologically, broncho-pneumonia. Patient made a rather slow convalescence, but after two days of normal temperature on April 8, patient began to have fever and sweats and evidence of sepsis. April 19, an aspirating needle was placed in the thoracic cavity and purulent material was withdrawn. April 22, it was thought advisable to do a thoracotomy and, under local anaesthesia, a closed thoracotomy was done, a trocar was plunged into the pus cavity and a pezzar catheter was passed into the pus pocket. From the evidence shown in the x-ray, we were gratified to find that we had placed the tube well up within a localized abscess of the lower lobe of the left lung which had pointed directly over the area where the aspiration was done. The patient made an uneventful recovery and has had no ill effects from the intrapulmonary abscess.

Case III

Patient.—Colored, male, age 44.

Past History.—Was treated at home by home physician for what was thought to be pneumonia of the left lung. He recovered from this illness, but had a very slow convalescence. Continually runs fever, has dyspnoea and cough, sweating, and has lost weight.

Past History.—Has had no serious illnesses, except that he has been taking antiluetic treatment for the past several years. No operations, no genito-urinary disturbances, no cardiovascular or gastrointestinal disturbances of note.

Physical Examination.—Well-developed and fairly-well nourished; temperature 100°F., pulse 100, respiration 24. Examination not otherwise remarkable except for dullness over the right chest and absent breath sounds. Heart is displaced moderately to the left, and he has the appearance of one who is harboring a septic disturbance.

Clinical Laboratory.—Urine essentially negtive; total leukocytes 11,100, small lymphocytes 36%, large lymphocytes 10%, monocytes 2%, neutrophils, 17%, mature, 35%, band forms. Wassermann negative.

Procedure.—Diagnosis of lung abscess was made and aspirating needle was introduced into the thoracic cavity, producing purulent material. This was followed by incision and closed drainage of the abscess cavity. A No. 22 pezzar catheter was inserted through the cannula for drainage. The convalescence was uneventful. Patient was sent home, tube in place, to return for observation and washing of the abscess cavity. It is interesting to note that the safety pin was not adequately secured, or was lost, and the tube slipped in the cavity. It was necessary to do rib resection and opening of the abscess area to remove the tube drain. This wide opening of the cavity and subsequent removal of large pieces of fibrinous exudate materially improved the patient's condition, and he made an uneventful recovery without any chronic drainage from the seat of the old infection.

ABSTRACT: DEFICIENCY DISTURBANCES IN CONGESTIVE HEART FAILURE

L. J. Clark, M.D.

Patient.—White, male, age 79; seen in clinic March 31, 1937.

Complaint.—Shortness of breath on exertion, gas and belching, regurgitation of food after breakfast and dinner.

History.—Sleeps fairly well except for nocturia. Has always been underweight and obstinate constipation requires constant purgation. No particular cough, no edema, no pain except substernal pain on exertion. Fairly good appetite. Had a "stroke" about thirty years ago with no resulting paralysis.

Physical Examination.—Temperature 98°F.; pulse 83; respiration 22; blood pressure 210/140. Systolic murmur over precordium; large globular dilated heart. Apparent loss of weight. Generalized evidence of arteriosclerosis.

Clinical Laboratory.—Urine normal. Erythrocyte count 4,900,000, hemoglobin 82%; leukocytes 13,300; normal differential count. Agglutination test for undulant fever negative. Wassermann test negative. Electrocardiogram shows marked left bundle branch block.

Procedure.—Treated for hypertension and arteriosclerosis. It was found necessary to administer digitalis on account of some congestive failure appearing at intervals, but there was no response whatsoever to treatment. Gradually became worse dyspnoea distinctly worse, rales throughout chest, liver enlarged, edema of ankles, and opiates were necessary for comfort.

Again seen in office December 1, after an absence of three months. No better. Tongue very sore and burning sensation of entire mouth and throughout the esophagus. Marked pruritis ani. Immediately put to bed and given concentrated liver extract and very moderate maintenance doses of digitalis for marked anorexia. For about two weeks there was no progress and very little food was taken. Vitamin diet was pushed and medicine continued and in six weeks there was distinct improvement. Treatment has been continued steadily with very small maintenance doses of digitalis and, at present the patient who is 80 years old, comes into the office every two weeks, is perfectly comfortable, does not know what it is to be short of breath, walks at least two or three miles each day, and has a good appetite, sleeps well, and his general appearance is that of a man in excellent health. However, electrocardiogram taken January 24 shows about the same condition as existed one year ago.

This case is presented because of the fact that general concensus of opinion is that a real organic bundle branch block patient never lives more than six months after diagnosis and the general tendency for these cases is for the patient to go down rapidly and not respond to any congestive heart failure treatment. I have several similar cases that have been treated in the same way and I have found that the deficiency treatment almost entirely brings the patient to the point where digitalis is not necessary. Attention is being given today to the question of deficiency treatment in advanced thyroid diseases and all types of congestive heart failure. It seems probable that this will accomplish something worthwhile in the manage of chronic heart disease.

HONOR ROLL

The following have contributed to this number of the official journal:

President: Dr. W. L. Little.

County Editors: Attala, John W. Pender; DeSoto, L. L. Minor; Humphreys, J. W. Jackson; Leflore, W. B. Dickins; Monroe, C. E. Boyd; Oktibbeha, F. B. Long; Panola, G. H. Woods; Washington, J. A. Beals; Winston, M. L. Montgomery.—9.

Societies: Central Medical Society, L. W. Long; Coahoma County, N. C. Knight; Issaquena-Sharkey-Warren Counties Medical Society; Monroe County Medical Society, C. E. Boyd.—4.

Medical Literature: Alston Callahan, Felix J. Underwood; A. Street, E. T. White, T. H. Blake, Harvey F. Garrison, J. A. Beals, Chas. D. Mitchell.—8.

Hospitals: Attala County Hospital, John W. Pender; East Mississippi State Hospital, J. S. Hickman; North Mississippi Community

Hospital, Helen Branham; Vicksburg Hospital, W. H. Parsons; Vicksburg Sanitarium. —5.

Others: F. J. Underwood; Emma Gay, L. W. Long, Hunter L. Scales.—4.

Grand Total—31.

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASS'N

DOCTOR'S DAY IS OBSERVED IN NATCHEZ

In celebration of Doctor's Day, which is an annual occasion, the Ladies Auxiliary to the Adams County Medical Society entertained the physicians of Natchez at the lovely home of Dr. and Mrs. H. M. Smith on South Union Street, Jan. 24.

Nearly all the physicians and their wives were present.

A delicious spaghetti and chicken supper was served to about 30 guests, who were seated at a long table, in the reception and dining rooms.

The tables were beautifully decorated with lovely white and hedge camellias and yellow jonquils.

Dr. W. K. Stowers, president of the Adams County Medical Society, was present, also Dr. Francis Dixon, secretary.

Dr. Homer Whittington, Secretary, represented the Homochitto Valley Medical Society.

Mrs. McDonald Watkins, President, and Mrs. Frances Dion, Secretary of the Woman's Auxiliary were also present.

Short addresses were made by Dr. R. D. Sessions, Dr. H. M. Smith, Dr. Louis Magee, Dr. Wallace Smith, Dr. W. K. Stowers, and Dr. Edwin Benoist, Mrs. McDonald Watkins, Mrs. Hattie Bauer, Mrs. J. W. Chisholm.

Dr. Benoist offered to take some moving pictures of the group at a later date.

NORTH MISSISSIPPI MEDICAL AUXILIARY

Complimenting their son, Hugh Boswell, Dr. and Mrs. H. P. Boswell entertained a group of his friends with a dinner party in their home Saturday evening, the first day of the new year.

Following the dinner the guests were entertained at the Royal Theatre where seats were reserved. The guests enjoying the pleasures of this very delightful party were. Dorothy Ann Smallwood with Hugh Boswell; Jamie Daniel with John Daniel; Peggy Caldwell with Robert Patterson, Jr.; Carolyn Speck with Edward Daniel; Gene Golding with J. P. Kirkland.

Efraim Delgadillo was a genial host Friday evening entertaining the younger set with a delightful dance. The lovely home of Dr and Mrs. C. M. Roberts, brother-in-law and sister of the host was thrown open for the party.

Mrs. C. M. Speck was a charming hostess one afternoon recently, entertaining sixteen guests with a delightful bridge party.

Dr. and Mrs. H. N. Mayes have returned home after an extended stay in New Orleans. They also visited in Florida before their return home.

Four-County Auxiliary

The members of the Four-County Auxiliary met Tuesday afternoon, March 8, in the home of Mrs. John Trice, for a very profitable meeting.

SULFUR DIASPORAL

. . . the original Colloidal Sulfur used successfully in cases of

Chronic Arthritis

Clinical reports indicate results with Sulfur Diasporal in the treatment of arthritis, sciatica, myositis, etc., are more satisfactory than with other methods of treatment.

Colloidal therapy helps to establish the normal metabolic stability in arthritics through the elemination of toxins.

No reaction or ill effects take place with its proper administration.

Write for literature and reprints of important publications.

THE DOAK CO.

Cleveland - - - - - Ohio

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical
Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tennessee

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 5-1388
899 Madison Ave. Memphis, Tenn.

LUCIEN A. LeDOUX, M.D.
Gynecology & Obstetrics
Maison Blanche Building
New Orleans

DRS. HENDERSON & HALL
Dermatology & Syphilology
Radium and X-Ray as Applied in This Field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Phones: Off: 6-1923 —:— Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Mississippi

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
—Dermatology—
Standard Life Building
Jackson, Mississippi

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY—UROLOGY—SURGERY
899 Madison
Memphis, Tennessee

WILLIAM MILTON ADAMS, M.D.
Practiced Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tennessee

HENRY G. HILL, M.D.
Clinic 847 Madison Avenue
Memphis, Tennessee
Practice Limited to:
Diseases and Injuries, Bones and Joints, Cripples
and Deformities, Braces and
Appliances

FRANK W. SMYTHE, M.D.
Practice Limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-Surgery
Physicians and Surgeons Bldg.
Memphis, Tennessee
Phones: Off: 6-3288 Res.: 29645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tennessee

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex - 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tennessee

GILBERT J. LEVY, M.D.
Practiced Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tennessee

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

DR. WILLIAM F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Mississippi

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Building
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis,
Diseases of Infants and Children
Lamar Life Building
Jackson, Mississippi

ROBERT H. BRUMFIELD, M.D., F.A.C.S.
General Surgery and Urology
McComb, Mississippi

DR. J. W. LIPSCOMB, JR.
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Mississippi

LAWRENCE W. LONG, B.A., M.D., F.A.C.S
410-412 Standard Life Bldg.
Jackson, Mississippi
GENERAL SURGERY
Surgical Diseases of Children

F. M. ACREE, M.D.
Greenville, Miss.

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

WILLIAM T. SATTERFIELD, M.D., F.A.C.S.
General Surgery
McLemore Clinic
919 E. McLemore Avenue
Memphis, Tennessee

D. H. ANTHONY, M.D., F.A.C.S.
Eye, Ear, Nose & Throat
1720 Exchange Bldg.
Memphis, Tenn.

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians and Surgeons Bldg
(899 Madison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye. Ear, Nose and Throat
and
Bronchoscopy
Princess Theater Building
Columbus, Miss.

W. L. WILLIAMSON, M. D. F.A.C.S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

WILLIAM T. BLACK, M.D., F.A.C.S.
Gynecology
Medical Arts Building
Memphis, Tenn.

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg), F.A.C.S.
Genito-urinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

DOUGLAS D. BAUGH, M.D.
—CLINIC—
Diagnosis—Internal Medicine
First National Bank Building
Columbus, Miss.

DR. H. RANDOLPH UNSWORTH
Practice Limited to Nervous and Mental Diseases
Hours: 1 to 5, by appointment.
10 to 12 on Saturdays
Office: 819 Maison Blanche Building.
New Orleans, La.

WALTER W. ROBINSON, M.D.
Crisler Clinic
1291 Union Avenue
Memphis, Tennessee
Specializing in
PATHOLOGY
ROENTGEN
DIAGNOSIS and THERAPY

DR. J. CASH KING
Practice limited to
RADIOLOGY
902 Madison Avenue
Memphis, Tenn. Telephone 6-7460

SHIELDS ABERNATHY, M.D., F.A.C.S.
HOWARD H. ASHBURY, M. D., Oncologist
CLINIC
For General Surgical and
Neoplastic Diseases
Complete Modern Radiological Equipment
1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING
I. G. Duncan, B.S., M.D., F.A.C.S.
J. S. Fleming, M.D.
GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION
Suite 1500-06 Commerce Title Bldg
Memphis, Tennessee

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS, Clinical Pathology
MARJORIE WADE, Bacteriology.

THE WOMAN'S CLINIC
W. T. Pride, M.D.
Carey Bringle, M.D.
James M. Brockman, M.D.
Gynecology Obstetrics
1460 Madison Avenue Memphis, Tenn.

R. T. NOWLIN, M.D.
Nowlin Clinic
Practice Limited to Surgery
1434 Hollywood Street, Memphis Tennessee
Local and Long Distance Telephone, 4-1221

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

EDWARD CLAY MITCHELL—QUINN CLINIC
1073 Madison Avenue
Memphis, Tennessee
Practice Limited to
Infant Feeding and Diseases of Children
Hours: 10:00 A. M. to 12:00 M.
2:00 to 5:00 P. M.
By Appointment Phone 7-1307

DUANE CARR, M.D.
Diseases of the Chest
Endoscopy — Thoracic Surgery

Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

Telephones: 8-3662; 2-3226; 2-2138

THE MEDICAL CLINIC
910 North State
Jackson, Mississippi
George W. Owen, M.D., Allergy
T. E. Wilson, M.D., Cardiology & Internal Medicine
John Bullock, M.D., Pediatrics: Allergic Diseases of Children
Gayden Ward, M.D., Internal Medicine, Gastroenterology
Robin Harris, M.D., Eye, Ear, Nose & Throat: Diagnosis.
Diagnostic Facilities: X-ray, Electrocardiogram, Basal Metabolism Complete Clinical Laboratory, Allergy Laboratory.

Compliments
JAMES W. BODLEY, M.D.
Memphis, Tenn.

ISAAC C. HUGGINS, M.D.
Practice limited to
UROLOGY and PROCTOLOGY
522-23 Standard Life Bldg.
Jeckson, Miss.

DR. HENRY B. GOTTEN
INTERNAL MEDICINE
DIABETES
20 S. Dunlap
Memphis, Tennessee

T. E. WILSON, M.D.
Practice Limited to Internal Medicine
Office 522 Standard Life Bldg.
Jackson, Miss.

GEORGE GARTLY, M.D., F.A.C.S.
SURGERY and GYNECOLOGY
1014 Farnsworth Building
Memphis, Tennessee

JOHN C. HENTHORNE, M.D.
— Pathologist —
Mississippi Baptist Hospital
Jackson, Mississippi

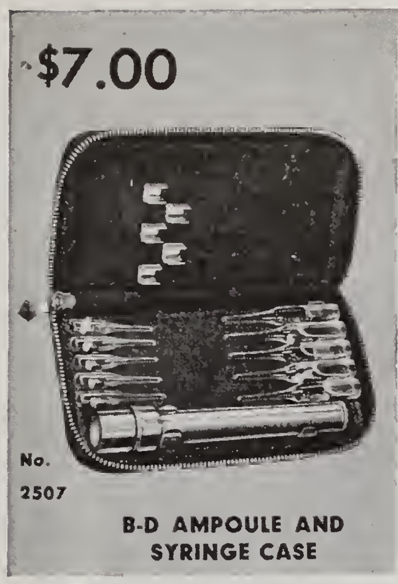
THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

MEDICAL, SURGICAL, DENTAL CLINIC
Drs. Whittington, Gaudet and Geisenberger,
405 Franklin St., Natchez, Miss.

Medicine
Surgery
Dentistry
Eye, Ear, Nose and Throat

Electrocardiography
Allergy
X-Ray Laboratory
Clinical Laboratory

B-D PRODUCTS
Made for the Profession



B-D AMPOULE AND SYRINGE CASE

No. 2507. A very handsome, compact case of moose-grain cowhide with slide fastener. Size 7″ x 3¾″ x 1 5/16″. Clips for 15 ampoules. Included is a sterilizing case containing a 2 cc. B-D Yale Luer-Lok Syringe and 3 26G ½″ B-D Yale Rustless Needles.
Price........................**$7.00**

McKesson & Robbins,
Incorporated
Doster-Northington Division
1706-12 First Avenue Birmingham, Ala.

PRINTING PLATE SPECIALISTS
MISSISSIPPI ENGRAVING CO.
Jackson Miss.
CI

When You Call On

MERCERE'S

YOU ARE GOING TO GET
WHAT YOU WANT

A small item of supply needed in a hurry . . special office or hospital equipment to meet an emergency . . an Oxygen Tent to save a patient's life . . when you call on MERCERE'S in person, by phone, wire or letter, you have called on a Surgical Supply House that knows how to "come through" with what you want when you want it.

MERCERE'S
E. L. MERCERE, Incorporated
191 MADISON AVE. — MEMPHIS

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 221 North Farrish St.
Jackson, Mississippi

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate

ADMINISTRATION BUILDING

BLUE MOUNTAIN COLLEGE

Blue Mountain, Mississippi

FULL MEMBER OF SOUTHERN ASSOCIATION OF COLLEGES

Write for catalogue and new booklet on campus views.

LAWRENCE T. LOWREY, PRESIDENT

DR.J.A.MILINE

Main Building

FENWICK SANITARIUM

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES

DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association—medical staff specially trained—clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds—homelike environments—located in the healthy and beautiful town of Covington, Louisiana—a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

THE N.Y. ACADEMY
OF MEDICINE
FEB 26 1940
LIBRARY

The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, APRIL, 1938 NO. 11.

SCHOOL OF MEDICINE--UNIVERSITY OF MISSISSIPPI

In the past a frequent complaint from mothers was the expense incurred when the large bottle of antiricketic was accidentally upset.

"Busy fingers" can't spill OLEUM PERCOMORPHUM

Even if the bottle of Oleum Percomorphum is accidentally tipped over, there is no loss of precious oil nor damage to clothing and furnishings. The unique Mead's Vacap-Dropper* is a tight seal which remains attached to the bottle, even while the antiricketic is being measured out. Mead's Vacap-Dropper offers these extra advantages also, at no increase in price:

Unbreakable

Mead's Vacap-Dropper will not break even when bottle is tipped over or dropped. No glass dropper to become rough or serrated.

No "messiness"

Mead's Vacap-Dropper protects against dust and rancidity. (Rancidity reduces vitamin potency.) Surface of oil need never be exposed to light and dust. This dropper cannot roll about and collect bacteria.

Accurate

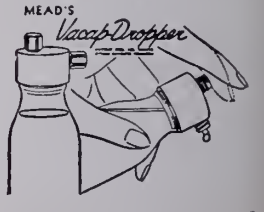
This unique device, after the patient becomes accustomed to using it, delivers drops of uniform size.

No deterioration

Made of bakelite, Mead's Vacap-Dropper is impervious to oil. No chance of oil rising into rubber bulb, as with ordinary droppers, and deteriorating both oil and rubber. No glass or bulb to become separated while in use.

How to Use MEAD'S *Vacap-Dropper*

Remove both top and side caps. Wipe dropper tip. Regulate rate of flow by using finger to control entrance of air through top opening (see below). Oleum Percomorphum is best measured into the child's tomato juice. This is just as convenient and much safer than dropping the oil directly into the baby's mouth, a practice which may provoke a coughing spasm.



U. S. Pat. Nos. 2105023 and 101575

**Supplied only on the 50 c.c. size; the 10 c.c. size is still supplied with the ordinary type of dropper.*

OLEUM PERCOMORPHUM
More Economical Now Than Ever

MEAD JOHNSON & CO., Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

GREATER SAFETY

In the Arsenical Treatment of Syphilis

500,000

1,000,000

1,500,000

2,000,000

3,000,000

INJECTIONS OF MAPHARSEN HAVE BEEN ADMINISTERED WITHOUT ANY FATALITIES HAVING BEEN REPORTED

Mapharsen (meta-amino-para-hydroxy-phenylarsine oxide hydrochloride) is available in single dose ampoules containing 0.04 and 0.06 Gm., each in individual packages with or without distilled water. It is also supplied in ten-dose ampoules, containing 0.4 and 0.6 Gm., for use by hospitals and clinics.

PARKE, DAVIS & CO. - DETROIT

The World's Largest Makers of Pharmaceutical and Biological Products

THE DAY YOU FIRST INSPECT IT...

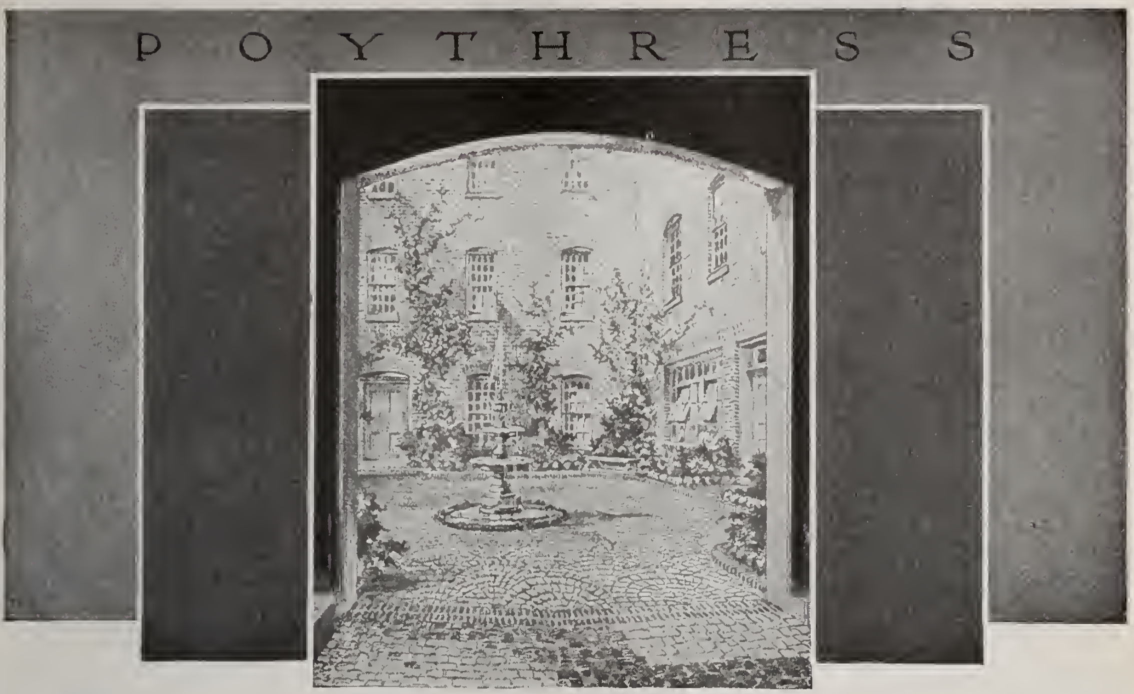
or after you've used it a year

The Pandex will impress you by its extraordinary flexibility, its many novel and eminently practical features, its utter dependability. Like the famed two-tube two hundred milliampere Fluoradex, the new single-tube sixty milli Pandex meets a definite demand. In the small hospital, where the scope of diagnostic x-ray work is limited, it serves adequately for every purpose. It is an excellent auxiliary unit to relieve major equipment for its specialized functions in the large institution.

The brilliant new Westinghouse Pandex is fully described in Bulletin No. 571. Your copy is waiting for you.

**WESTINGHOUSE
X·RAY CO·INC·**
LONG ISLAND CITY·N·Y·

THE DICK X-RAY COMPANY
MEDICAL ARTS BUILDING MEMPHIS, TENN.



THERE CAN BE NO COMPROMISE WITH QUALITY

- Knowing how to make good pharmaceutical products for more than eighty years does not in itself supply the answer to the question WHY Poythress has up-held the confidence of physicians.

- The answer lies deeper — in the quality of the products themselves. Exceptional purity of ingredients make results more predictable.

- Quality is the cornerstone of which confidence is built.

WILLIAM P. **POYTHRESS** & COMPANY
INCORPORATED
RICHMOND, VIRGINIA

Manufacturers of Fine Pharmaceutical Specialties

Drink
Coca-Cola
TRADE MARK REGISTERED
Delicious and
Refreshing

Pure refreshment

BAPTIST HOSPITAL Jackson, Miss.

WELCH'S SANITARIUM, Inc.--- Jackson, Miss.

ALCOHOLISM, DRUG HABITS, MILD NERVOUS DISORDERS treated. Special attention to limited number of problem children. Answering a keenly felt need in Mississippi, this modern sanitarium is under personal direction of Dr. R. R. Welch, former Supt., East Mississippi State Hospital and prior to that, Ass't. Supt., Miss. State Hospital, assisted by complete, highly trained staff. Excellent meals. Quiet, restful; beautiful surroundings; all outside rooms, private baths Inspection by the medical profession invited. Reasonable rates; write or telephone.

WELCH'S SANITARIUM, Inc., JACKSON, MISSISSIPPI

". . . and for restful comfort choose the traditionally perfect service of

HOTEL GAYOSO"

C. C. Cartwright, Vice President and General Manager

MEMPHIS, TENN.

FAMOUS FOR YEARS

The Arms of Governor Gayoso

For an appetite treat at a sensible price visit HOTEL GAYOSO *Lobby Coffee Shop.*

LOW PRICED LUXURY

Single Rooms $2.00 up

350 ROOMS

Double Rooms $3.00 up

FREE PARKING IN GARAGE

MISSISSIPPI'S . . . only and most conveniently located Physician's and Surgeon's Supply House

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St. Phone 1444
JACKSON, MISSISSIPPI

Let's Grow With Mississippi

Your Every Need Quickly Answered

- Surgical Instruments
- Physio -Therapy
- Belts and Trusses
- Rubber Goods
- Wheel Chair Rentals
- Hospital Furniture

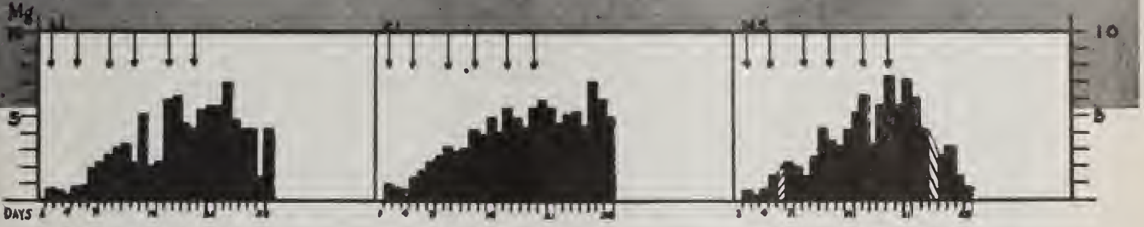
Etc.

The Friendly Store of Dependable Service

— As Close As Your Telephone —

Iodobismitol

INDUCES AND MAINTAINS A THERAPEUTIC LEVEL OF BISMUTH IN THE BLOOD STREAM



Urinary excretion of bismuth after multiple injections of Iodobismitol. Arrows indicate injections

In a recent clinical study,[1] patients were given 2-cc. doses of Iodobismitol twice weekly for a period of three weeks. The charts illustrated above show the urinary excretion of bismuth over a period of four weeks—49 per cent of the bismuth having been excreted. This would serve to "indicate that Iodobismitol is capable of developing a potent bismuth level in the blood stream. . . ."

This effect seems highly desirable for, according to the Council on Pharmacy and Chemistry, "Probably those compounds of bismuth will have the best antispirocheticidal value that are able to keep the therapeutic level of bismuth in the blood stream at such a continuous height that it will be reflected in the urine with a level of 0.003 Gm. or more of metallic bismuth per day."

Iodobismitol may be used alone or with the arsenicals. It is well tolerated in both early and late syphilis. Iodobismitol is almost completely absorbed, exerts a relatively prolonged effect at a high level, and a very high efficiency with respect to therapeutic utilization of the dosage given.

Iodobismitol with Saligenin is a propylene glycol solution containing 6% sodium iodobismuthite, 12% sodium iodide, and 4% saligenin (a local anesthetic). It presents bismuth largely in anionic (electronegative) form.

---

[1] Sollmann, T., Cole, H. N., Henderson, K., *et al.*: *Amer. J. Syph. Gon. & Ven. Dis.* 21:480 (Sept.), 1937.

SQUIBB ARSENICALS

Neoarsphenamine Squibb, Arsphenamine Squibb, and Sulpharsphenamine Squibb are prepared to produce maximum therapeutic benefit. They are subjected to exacting controls to assure a high margin of safety, uniform strength, ready solubility, and high spirocheticidal activity.

For literature write to Professional Service Dept., 745 Fifth Avenue, New York

E·R·SQUIBB & SONS, NEW YORK

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

THE WALLACE SANITARIUM

MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

---

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most
Modern Business School

A. S. McCLENDON, President

IN THIS ISSUE

THE ORTHOPEDIC TREATMENT OF ANTERIOR POLIOMYELITIS
C. H. Crego, Jr., M.D. 1

RADIUM TREATMENT AND BENIGN UTERINE BLEEDING
Ira I Kaplan, M.D. 5

CONGENITAL HYPERTROPHIC PYLORIC STENOSIS 9

TO APPEAR ON STATE PROGRAM 12

THE UNIVERSITY OF MISSISSIPPI SCHOOL OF MEDICINE 15

EDITORIALS 31

LAWRENCE W. LONG, M.D. 33

NOTES AND OBSERVATIONS ON HEALTH SUBJECTS—Made in South Africa in 1937
W. A. Evans, M.D. 35

COMMERCIAL EXHIBITORS 38

COMING MEDICAL MEETINGS 38

COMMITTEE ON ARRANGEMENTS OF THE CENTRAL MEDICAL SOCIETY 42

SOME ACUTE ABDOMINAL CONDITIONS IN CHILDHOOD
Joseph Brennemann, M.D. 43

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE ESOPHAGUS
Paul H. Holinger, M.D. 51

THE MODERN CONCEPT OF SINUS SURGERY "VERSUS" THE OLD IDEA, ONCE A SINUS, ALWAYS A SINUS
Virgil L. Payne, M.D. 58

MISSISSIPPI STATE MEDICAL ASS'N 64

WOMAN'S AUXILIARY 92

WITH OUR ADVERTISERS

American Surgical Supply Co. vi
Baptist Hospital, Jackson, Miss. iv
Blue Mountain College ....inside back cover
Coca-Cola iv
Courtesy Cards ....xi, xii, xiii, xiv
Doak Co., Inc. xix
E. R. Squibb & Sons vii
Eli Lilly and Company x
Fenwick Sanitarium ....back cover
H. A. Phillips Artificial Limb Co. xvii
Hotel Gayoso v
Hoye's Sanitarium xv
Lobdell Scenic Studios xix
Lynnhurst Sanitarium xvii
McKesson Robbins, Inc. xviii
Mead Johnson & Co. ....inside front cover
Mercere's xvii
Mississippi Engraving Co. xviii
Mississippi Power & Light Co. xx
Parke, Davis & Co. i
Pharmax Sales Corporation xvi
Robert E. Lee Hotel xv
Southern Surgical Supply Co., Inc. xix
The Dick X-Ray Company ii
The Draughon School of Commerce viii
The Turner-Gotten Sanatorium xx
The Wallace Sanitarium viii
Welch's Sanitarium, Inc. v
William P. Poythress & Co. iii

WHO contributes to medical progress? The chemist, the bacteriologist, the clinician, to be sure, and all other workers in the basic and medical sciences. A less manifest but no less essential part is played by the pharmaceutical manufacturer, who contributes to medical advancement by fundamental research and through adaptation of laboratory methods to economical, large-scale production.

★ ★ ★ ★ ★ ★

'SECONAL' (Sodium Propyl-methyl-carbinyl Allyl Barbiturate, Lilly) is a new hypnotic that can well replace older barbiturates in many clinical fields. 'Seconal' causes restful sleep and relaxation —neither too long nor too short in duration. After-effects are practically eliminated.

Supplied in bottles of 40 and 500 pulvules (filled capsules).

ELI LILLY AND COMPANY

INDIANAPOLIS, INDIANA, U. S. A.

The Orthopedic Treatment of Anterior Poliomyelitis*

By C. H. CREGO, JR., M.D.

ST. LOUIS, MO.

ANTERIOR poliomyelitis, so-called, is an acute generalized infectious disease which affects organs and tissues throughout the entire body and in which there may or may not be central nervous system involvement. In every epidemic there are many cases who show some or all of the early general symptoms of the disease but in whom no paralysis occurs. There are undoubtedly countless numbers of persons who have had the disease in such a very mild non-paralytic form that poliomyelitis has not been even remotely suspected. It is conservatively estimated that well over 50 per cent of the persons who actually have the generalized infection escape without demonstrable damage to the neuro-muscular system. Because of this fact, it has been stated that the paralysis is an incidental and not an essential feature of the disease. To those in the past who have escaped it and to those in the future who may escape it, paralysis may truly be regarded as incidental, but to those unfortunates whose motor functions have been or will in the future be impaired or destroyed by anterior poliomyelitis, the paralysis will ever be the major feature of the affliction.

For, in spite of the great number of non-paralytic cases, in spite of all of the investigative work along the lines of prevention, and in spite of the various forms of therapy directed toward the control of the disease in the pre-paralytic stage, each year leaves behind it hundreds of new victims with varying degrees of disability in whom paralysis is the paramount issue.

It is not surprising then that in the treatment of anterior poliomyelitis, both the physician and the patient are primarily interested in the therapeutic measures that are most likely to insure the maximum return of function in partially or totally paralyzed muscles.

In order to appreciate fully the rationale of the accepted orthopedic treatment of poliomyelitis, it is important to keep in mind the known facts regarding the pathology of the disease as it affects the nervous system. The process starts as an acute hemorrhagic interstitial meningitis. There is hyperemia, perivascular infiltration and extensive edema of the spinal cord with varying degrees of hemorrhage. This leads to an increase in the pressure within the cord itself and as a result there is mechanical damage to the nerve cells. The perivascular infiltration produces diminished circulation and the resulting anemia causes nutritional damage to the nerve cells. Lastly, a certain amount of nerve cell damage occurs from the direct toxic action of the virus itself. For some reason not wholly understood, the anterior horn cells of the spinal cord are the ones most commonly affected. However, temporary involvement of other cord areas is present in practically all cases as evidenced by muscle and skin tenderness, and in every epidemic there are cerebral and bulbar forms which may cause death through paralysis of the vital functions of deglutition, respiration, and circulation.

If the acute process is mild in degree and subsides quickly, the damaged, but still viable nerve cells tend to recover their function in whole or in part, but if the process is severe, extensive, and prolonged, the nerve cells are likely to go on to complete degeneration with subsequent replacement by focal glioses and permanent loss of function.

The degree and extent of the initial paralysis is dependent upon the location and the number of anterior horn cells involved. It may vary from totally frail upper and lower extremities to only a slight weakness of one or more of the muscle groups. Clinically, it is impossible to determine whether the initial paralysis will be temporary or permanent, for the immediate effect of loss of function of a given nerve cell is the same whether it be temporarily damaged or permanently destroyed. The cells temporarily impaired will show varying degrees of recovery but the cells permanently injured will never regain their function. Consequently, only time will answer the question of how much permanent paralysis a given case will show.

---

*Read at the meeting of the Mid-South Post-Graduate Medical Assembly, Memphis, Tenn., Feb. 17, 1938

With these facts in mind, it becomes evident that the treatment of poliomyelitis should be directed first toward the restoration of function in those muscles affected by the initial paralysis, and later, toward reconstructive rehabilitation in the residual stage of the disease.

It is customary from an orthopedic viewpoint to divide the course of the disease into three separate and distinct stages—the acute stage, the convalescent stage, and the residual stage. It is convenient therefore in discussing the orthopedic treatment of anterior poliomyelitis to outline the therapeutic measures employed in each of these stages.

In the acute stage of the disease, which lasts from the onset of the paralysis until the complete disappearance of muscle tenderness, our chief concern is first, the comfort of the patient, second the inhibition of muscular activity, third the prevention of contractures and deformities, and fourth the rigid avoidance of muscle stretch.

All of these aims can be accomplished by absolute bed rest and complete immobilization of the extremities involved. The immobilization can be effected either by adhesive traction, sand bags, pillows, well padded metal splints, or carefully applied plaster casts. It is obvious that the ideal method is that of plaster casts, but regardless of how the immobilization is obtained, extreme care should be exercised to maintain the involved extremity in the position that favors maximum relaxation of the muscles involved.

In the foot and ankle, it has always been taught that drop foot should be prevented at all cost, but as a matter of fact, the most important muscle group, as far as future weight bearing is concerned, is the gastrocnemius soleus group. Permanent paralysis of these muscles leads to a calcaneus deformity which is far more disabling than a drop foot. Consequently, it has been our practice to favor the gastrocnemius soleus group even at the expense of slight stretch on the dorsiflexors, and the position of immobilization for the foot should be one of 5° or 10° plantar flexion with very slight inversion.

The most important muscles in the thigh are the extensors. The knee, therefore, is immobilized in a position of not more than 5° flexion. This position favors the quadriceps femoris. In the hips, the muscles to be favored are the extensors and the abductors, as these muscles play a most important part in locomotion. The hip then is immobilized in full extension and in about 15 degrees to 20 degrees abduction. The lower extremities should be in the neutral position in regard to rotation.

The upper extremities, if involved, should be placed in a position of about 70° abduction at the shoulder, mid-way between full internal and external rotation, 90° flexion at the elbow, slight palmar flexion at the wrist, with the forearm in the mid-position in regard to supination and pronation. This position favors the deltoid, the biceps and the palmar flexors of the wrist and fingers, all of which are more important than the abductors of the shoulder, the extensors of the elbow, and dorsiflexors of the wrist. Abdominal weakness or paralysis so frequently overlooked should be taken care of by slightly flexing the dorsal and lumbar spine with a pillow under the shoulders.

The patient so immobilized is made infinitely more comfortable by such fixation. The paralyzed muscles are not only put at rest but also prevented from being over-stretched, and deformities cannot occur as long as immobilization is maintained.

There is no evidence that drugs are of any use in the acute stage of the disease, nor is anything to be expected from counter-irritation externally applied. Deep massage, active and passive motion, and electrical stimulation are to be rigidly avoided. Such treatment prolongs the stage of muscle tenderness, is a source of extreme discomfort to the patient and cannot possibly benefit muscles whose nerve supply is not intact. Joints will not become permanently ankylosed, muscles will not hopelessly atrophy, and the patient will not become bed-ridden from being at rest over a long period of time.

This policy of doing nothing is most trying to the parents who have heard of the wonders of massage, electricity, and exercises, and who are anxious that no time be lost in getting their child back on his feet, but in spite of this, no treatment other than that of immobilization and bed rest is indicated during the acute stage. The acutely damaged cord must be allowed to recover itself without the interference incidental to meddlesome therapeutics.

After the disappearance of muscle tenderness, which lasts from a few weeks to a few months, the stage of convalescence is entered and more definite rehabilitation may be instituted. At the beginning of the convalescent stage, an accurate determination of the strength of every individual muscle should be recorded. This muscle examination is not only for the purpose of determining what muscles are paralyzed and the degree of paralysis, but also for use as a guide in evaluating future improvement.

Having determined the amount and distribution of paralysis, a definite program of muscle re-education is instituted. This consists of a series of anatomically planned exercises voluntarily performed by the patient and supervised by a physiotherapeutic aid, carefully trained in this work. Every case of infantile paralysis should be regarded as a clinical entity and it is necessary therefore that the exercises be individual in nature. No set of exercises can be prescribed for a group of patients, and only those exercises should be carried out which will tend to cause voluntary contraction of the weak or partially paralyzed muscles. Normal muscles should be kept at rest or even stretched in order to prevent them from causing deformities. Muscle fatigue should be avoided at all cost. It has been frequently demonstrated that over-use of a partially paralyzed muscle will cause it to lose strength rapidly. Throughout this period of convalescence, the extremities should be retained in the positions previously outlined at all times except during the exercise period. This principle of protection and prevention of stretch has been recognized for years, but is by no means carefully observed, even in well regulated orthopedic clinics, our own included. All too frequently, protective apparatus is removed too soon, and the returning muscles are damaged by the unsupported weight of the involved extremity.

Muscle re-education under water has certain advantages in the later stages of the disease, but to my mind this form of treatment has been tremendously over-rated and has no place whatever in the treatment of infantile paralysis during the acute and early convalescent stage. In the later stages of convalescence and in the residual stage of the disease, under-water treatment is an ideal way in which to give exercises to a badly paralyzed patient, and an ideal way in which to teach patients to learn to walk after the prolonged immobilization period. As a means of stimulating and maintaining morale, under-water treatment has no equal.

Before deciding whether or not an individual patient should be allowed to walk, one must be certain that the hope of complete recovery or further substantial muscle gains has ceased to exist. On general principles, ambulatory treatment, even in mild cases, should not be permitted until 6 months or a year after the onset of the disease. When walking is started, the involved limbs should be supported with adequate braces, even though there is sufficient limbs should be supported with adequate braces, even though there is sufficient muscle power to sustain body weight. In many instances, weakened muscles will lose considerable power when required to carry on the job of a normal muscle. Braces should be made as light as possible, they should be planned to provide support for the weakened and paralyzed muscles only, and they should prevent deformities. After weight bearing is started, great care should be used to prevent the patient from becoming over-enthusiastic to the point of fatigue as nothing but harm will result from over-use of recovering muscles.

The use of night splints to maintain the limbs in good functional position so that deformities and contractures will not occur, should be continued as long as indicated, certainly well into the residual stage.

The residual or chronic stage is reached when muscle regeneration is at a standstill and no matter how extensive may be the residual paralysis, the patient should reach this final stage without deformities. Granted that such is the case, the question now arises as to what can be done in the line of reconstructive surgery to improve the patient. If the residual paralytic involvement is complete in one or more extremities, the possibilities of improvement by surgery are remote, and it therefore becomes necessary for the patient to use one or more braces, and in some instances not only braces, but crutches and an abdominal and back support. It is very rare, indeed, to see a case in whom the residual paralysis is of sufficient degree to prevent some type of locomotion.

Fortunately, a number of cases can eventually become brace free and it is in this type of case that well-planned surgical procedures can be instituted to improve function.

These procedures consist mainly of tendon transplantations and joint stabilizations. The purpose of tendon transplantation is to overcome muscle imbalance by changing the insertion of the tendon and placing it in a position where it will function best without causing a deformity. It is sometimes possible to rid the patient of apparatus entirely through tendon transplantation alone. This is notably true when the hamstring muscles are used to take the place of paralyzed quadriceps. Operations on the bones and joints to secure stability are being more and more adopted and yield quite satisfactory results. If, for instance, the muscles of the shoulder are paralyzed while the muscles controlling the movement of the scapula, elbow, wrist, and hand are intact, an arthrodesis of the shoulder joint in good functional position will greatly improve the use of the involved extremity. As another example, excellent function can be expected through arthrodesis of the wrist when the so-called wrist drop is present. In some instances, when a patient has a stable foot and good control of the hip, but no power at the knee, an arthrodesis of the knee joint in good functional position will rid the patient of a brace. This procedure, however, should not be done until the patient is old enough to decide for himself whether or not a stiff knee is more desirable than a brace. In those cases whose residual paralysis is mainly below the knee, foot stabilization is a most excellent procedure and in a large number of cases when combined with tendon transplantation, will do away with apparatus entirely.

A certain number of patients will eventually show varying degrees of shortening in the involved extremity. This is entirely independent of the amount and distributions of the paralysis. One patient with only a scattered weakness may develop several inches of shortening, and it is not unheard of for a patient with one normal extremity and one frail extremity to end up with no shortening at all. True these are the extremes but nevertheless they do occur.

There are three surgical procedures available to overcome the handicap of shortening: (1) shortening of the normal side, (2) lengthening of the short side, and (3) stopping the growth of one or more epiphyses on the normal side. The indications and contraindications for these procedures are too complicated to discuss here. But much can be accomplished by the wise and judicious use of the three procedures either alone or in combination.

In estimating the probable value of any elective surgical procedure as a means of improving function, one must never fail to view the patient as a whole, not only physically but socially and economically as well. There is no point in doing operations unless the patient can expect to gain something by it, either in the way of ridding him of apparatus or improving some function necessary to the welfare of that particular patient.

Unfortunately, only a small percentage of poliomyelitis sufferers reach the residual stage without the development of one or more deformities which could have been avoided by proper early treatment and post-paralytic after care.

In these cases we are not only confronted with residual paralysis but also with deformities and contractures of the soft parts and of the bones themselves.

Each of these patients presents an individual surgical problem. The deformities must be corrected by well-planned procedures, surgical or otherwise, and then the needs of the patient for rehabilitative surgery must be carefully evaluated. Because of the fact that each case is an individual problem, lantern slides will be used to illustrate the corrective and reconstructive treatment commonly employed in a number of such cases.

204 Humboldt Bldg.

Radium Treatment of Benign Uterine Bleeding

By IRA I. KAPLAN, B.S.c., M.D.
Director of Division of Cancer Department of Hospitals
NEW YORK, N. Y.

IN THE treatment of benign uterine bleeding radium therapy has played an increasingly important part. As might be expected, radium, having been discovered in France, its use in the treatment of gynecology was first carried out in that country.

Not long after the discovery of radium its physical and biological properties were studied and standardized and ever since then a mass of clinical experience has been assembled, as a result of which radium has become one of the most important weapons in the physician's armamentarium for treating gynecological conditions.

All too often the profession seems to regard radium therapy only as a method of treatment for malignant diseases and to neglect the opportunity of utilizing this flexible and effective agent for controlling benign uterine conditions.

Causes of Benign Bleeding:

A. Uterine pathology.
  1. Retroversion
  2. Adenomatoid hyperplasia
  3. Endometriosis
  4. Fibrosis uteri
  5. Fibroids.

B. Tubal infection.

C. Endocrine disturbance
  1. Imbalance between pituitary, ovary and thyroid
  2. Menopause
  3. Puberty

D. General conditions
  1. Tuberculosis
  2. Leukemia

E. Cervix

Obviously, accepted surgical conditions such as ectopic pregnancy, retroversion and tubal infections are not within the scope of radium therapy.

Recent important endocrine investigations have thrown great light on our understanding of gynecological disturbances. If excessive bleeding can be brought under control by hormone or chemo-therapy, certainly such simple procedures should first be utilized. There are times, however, when no cause can be ascertained, as is the case frequently in hemorrhages appearing at puberty or the menopause, and it is then that radium therapy performs a valuable service.

Radium acts directly on the uterine endometrium and indirectly on the ovaries. The endometrium is either inhibited in growth or entirely destroyed by the destructive action of gamma radiation on the cells. Although the ovaries lie at a distance from the uterine canal, still a sufficient dose is imparted to them to affect them. The radiation acts upon the graafian follicles which are most sensitive elements in the ovarian structure. Depending upon the total dose in the uterine canal, the activity of the follicles may be inhibited or even entirely destroyed. In fibroids of the uterus, the action of radium is twofold; directly on the tumor, and indirectly through destruction of ovarian activity, causing involution by the production of artificial menopause.

Irradiation over the spleen is often employed as a quick acting aid to control uterine hemorrhage. Its rationale is entirely empirical, but we presume it is the occurrence of rapid decomposition of thrombocytes in the spleen with the liberation of a coagulation ferment which arrests hemorrhage. This type of treatment is especially of value in the control of bleeding in young girls.

The method of applying irradiation varies with age, size and marital status of the patient, the underlying condition present and the anatomical structure of the patient. The severity of bleeding, and the amount of radium available also help to determine the mode of radium administration.

In younger individuals, attempt may be made first to irradiate the spleen, in order to avoid any direct effect upon the ovary; in older individuals the intrauterine route is utilized so that curettings may be obtained for histological analysis to exclude a malignant condition, a procedure that is not only advisable but highly necessary to proper therapeusis in gynecological bleeding.

Adenomatoid Hyperplasia: This condition is often resistant to repeated curettings but proves quite responsive to radium therapy. A rubber sound containing the radium tubes is inserted tandem into the uterine canal; depending upon the length of the uterine canal 2-5 tubes are used, each 5-15 mgm. content, filtered through 1.5 mm. platinum. Doses of 1000 to 5000 milligram hours are given depending upon the size and extent of involvment of the uterus and the obesity of the patient.

Endometriosis: When this diagnosis is made, radium therapy employed in the method as above described is readily applicable and effective.

Fibrosis Uteri: In the aged with senile atrophic uteri, at or beyond the menopause, bleeding may occur from the atrophic endometrium. Curettage reveals a fibrosis without signs of malignancy. Radium applied to the endometrium completely destroys the remaining active endometrial tissue replacing it with fibrous scar tissue, and obliterates the blood vessel supply thereto, thus controlling the bleeding.

Treatment is curettage followed immediately by the insertion of a rubber sound containing the radium tubes in tandem into the uterine canal. One or more tubes are used, containing 10-15 milligram radium and filtered with 1-1.5 mm. platinum. If the canal is short and can hold only one tube, the 25 milligram tube is used; if the canal is larger, two, 10 or 15 milligram tubes are used. The dose given is 2000 to 3500 milligram hours. While the radium is in place the patient is kept in bed and the usual post-operative care given.

Fibroids: Bleeding in association with fibromyoma of the uterus may well be controlled with radium therapy. A currettage should always precede the insertion of radium to make sure that the condition is benign. Curettage is also useful for removing submucous and papillomas.

The condition and location of the fibroids, whether single or multiple, are important in determining the procedure to be employed. Age, social status and child-bearing expectations of the patient must also be considered. Fibroids which are not producing urgent symptoms nor excessive in size, not infected or attached by a twisted pedicle, may be irradiated. Size alone, however, is no indication against irradiation. This method of therapy is indicated in cases where surgical removal is contraindicated or refused. Not in all instances does irradiation completely sterilize the patient, and in young women subsequent pregnancy may occur with birth of a normal child.

Radiation acts both on the ovaries and on the growing fibroid tumor. The older the patient the more permanent the suppression of menstruation. The mortality associated with irradiation is nil.

Radium therapy is carried out by the insertion of a rubber sound containing two or three radium tubes in tandem, depending on the depth of the uterine canal, and filtered through 1-15. mm. platinum with each tube containing 10-15 milligrams radium. The dose given is 1500-3000 milligram hours. Where submucous fibroids are present these should first be removed by the curettment before the radium sound is inserted in the manner described.

The technic of inserting radium into the uterus requires the same preparation and care as are employed for surgical procedures associated with uterine conditions, and the actual procedure of insertion is attended with all the precautionary measures employed in surgical dilatation and curettage procedures. Careful packing of the vagina is necessary to keep the radium in place and to protect the bladder and rectum from its direct effects.

While the radium is in place the patient is kept at rest in bed, fed with a fluid diet, given mild sedatives as needed and symptomatic treatment carried out as the exigencies of the case warrant. After the prescribed radium dose is administered, the radium is removed and the patient kept in bed until the temperature is normal and no bleeding occurs. An enema is given and the vagina douched. The patient is advised as to bowel and vaginal hygiene. In most instances when the bleeding is cared for the patient rapidly regains strength and general health without any further therapeutic measures being needed. In some cases however, additional measures for upbuilding the general health of the patient are prescribed.

Endocrine Disturbances: The appearance of vaginal hemorrhage in the absence of gynecological pathology may be explained by imbalances in hormone function. Blood and urine determination of prolan and estrin may be used in an attempt to isolate the faulty factor. Hormone therapy should be essayed, and if these measures fail after a reasonable length of time, radium therapy should be employed.

Where large quantities of radium are available treatment may be administered through the abdominal wall by means of a pack. This may contain from 500 to 5000 milligrams of radium, depending on the amount of radium available. The pack may be made of gauze, wood, wax, or rubber sponge, and the distance of the pack varies from 4 to 6 cms., depending on the amount of radium available and the size of the pelvis. The pack is placed on the abdominal wall opposite the site of the ovaries; if 500 milligrams are available a pack of 10x10 cms. may be employed and applied for 40 to 50 hours over each ovarian area anteriorly and posteriorly. Where sufficient radium is available two areas at a time may be treated. The skin distance should be 4 cm. and the filtration of the radium tubes 2 mms. platinum or its equivalent. If 5 grams of radium are available the pack is placed at a distance of 6 cms. from the skin, and the radium filtered through 2.5 mms. platinum or its equivalent. The pack is applied for 4-5 hours over each area for a dose of 20-25000 milligram hours per area.

Local radium therapy is accomplished by an intrauterine rubber applicator containing sufficient tubes in tandem to fill entirely the uterine canal. Tubes of 5-15 milligrams filtered through 1-1.5 mm. platinum are used, and the sound left in place a sufficient time to deliver the prescribed dose. The dose will depend upon the age of the patient; a young person may be cured with a dose as low as 300 milligram hours, while an older woman may require a full castration dose of 2000 to 3000 milligram hours. It is well to remember that in young females the ovaries must be spared, and unless considerable pathology is present in those glands, small doses in the uterine cavity will spare the ovary, and allow for future activity.

In females near the menopause, where bleeding is intermittent or prolonged and the loss of blood is of concern or the annoyance of the condition disturbing, control of the uterine bleeding is essential; even in the absence of gross pathology, a curettage should be performed for histological study of the endometrium to rule out the presence of a malignant condition. In most instances radium therapy in the form of an intra uterine sound readily controls the bleeding. The method of procedure and dose is the same as that employed in the treatment of hyperplastic endometritis.

Puberty bleeding may occur just before or immediately after the girl reaches the age of puberty and may be due to some physiological disturbance or, in a few instances, to some physical malformation. These latter conditions may require surgical corrective measures. The physiological causes of bleeding may be controlled by hormone therapy in many instances. When, however, this is not effective radium therapy may well be employed.

In numerous instances in young girls abnormal bleeding may be controlled by radium therapy to the spleen, and this means should be employed whenever possible before local radium therapy to the ovary or uterus is employed.

The spleen treatment is given with radium pack of 200-5000 milligram hours depending upon the amount available and a dose of 1000-25000 milligram hours administered at a distance of 4-6 cms. External radium packs may be employed, too, for the irradiation of the ovaries as already described. When these measures fail, intrauterine radium therapy is employed. The dose used is 300-1000 milligram hours, depending upon the size and condition of the uterus and the extent of the bleeding.

Tuberculosis: In cases of pulmonary tuberculosis where excessive uterine bleeding occurs or where even mild menstrual loss of blood is deemed deleterious to the patient's general well being, suppression of uterine bleeding may be effected by intrauterine application of radium in the manner already described.

Leukemia: Uterine bleeding may at times occur in leukemia. In such cases loss of blood is weakening, and therefore suppression of the uterine bleeding is important.

The radium therapy acts on the uterus, the adnexa and the pelvic lymphatic tissues. Treatment is carried out by intrauterine application of radium and in some cases additional treatment may be administered to the pelvis through a radium colpostat applicator through the vagina. The uterine sound may contain 30-45 milligrams of radium filtered through 1 mm. platinum and a dose of 900-2000 milligram hours administered. When vaginal radium therapy is employed, the colpostat is filled with tubes of 10-15 milligrams radium content; two or three corks may be used, depending upon the size of the vagina. A dose of 1000-3000 milligram hours may be administered over a period of 2 to 4 days. Radium packs may be applied to the spleen and the palpable lymph nodes wherever found throughout the body, as indicated.

In some cases vaginal bleeding is associated with benign persistent ulcerative cervicitis. Such conditions may be readily treated by topical application of radium. The radium may easily be applied in the form of tubes encased in rubber and wrapped in several layers of gauze, then packed against the cervix with iodoform gauze vaginal packing. Two or three radium tubes may be used containing 5-15 milligrams each filtered through 1-1.5 mm. platinum and a dose of 500-1000 milligram hours administered.

In some cases where the cervix is, large and the lesion extensive a colpostat radium applicator may be employed in a similar manner as that used for the treatment of cancer of the cervix.

Conclusions: Radium therapy is a useful, readily applicable method of treatment for the control of benign uterine bleeding.

Radium therapy referred to herein may be carried out by the use of either radium element or radon, whichever is most procurable. The biological effect from either is the same. When radon is used, however, proper allowance must be made for its decay in calculating the dosage given.

55 East 86th Street, New York City.

Congenital Hypertrophic Pyloric Stenosis*

By O. B. CROCKER, M.D.
HOUSTON, MISS.

CONGENITAL hypertrophic pyloric stenosis is not a new disease. Probably the first reference to this disease was made by George Armstrong in 1777. In an infant three weeks old that had died of the "water gripes" he states, "The stomach was quite distended with curdled milk and victuals, but the whole intestines were remarkably empty." Two older children of the same family had died at about the same age of this patient and with similar symptoms. Beardsley of this country in 1788 described clinical symptoms and necropsy in a child who evidently had the disease. However, it was not until Hirschsprung's clinical report in 1888 that cases began to be recognized. Even in 1898 its frequency was not well established. As late as 1902 only about fifty cases had been reported in the literature. At present the disease is far from infrequent. Most surgons can report their own private series of cases.

Etiology

The cause of hypertrophic pyloric stenosis is unknown. There has been endless discussion but the true etiological factor at present is as obscure as when the disease was first discovered. Everyone agrees that there is a combination of hypertrophy of muscle tissue in the pylorus and spasm of this tissue. Whether the spasm initiates the hypertrophy or follows the hypertrophy no one has ever found out. There are strong adherents to either side.

Pathology

The appearance of the pylorus in a well defined case of hypertrophic stenosis is characteristic and quite uniform. The pyloric canal feels like a hard cylinder. There is marked hypertrophy of the muscle, chiefly the circular muscle fibers. The tumor when picked up in the hand feels like an olive or the end of the thumb. It is not easily compressible. The overlying peritoneum is glistening and tense. The wall of the pylorus may be two or three times the normal thickness. The stomach itself may be, and usually is, much larger than normally. The submucosa may be edematous.

Symptoms

The symptoms may date from birth but they usually occur between the second and fifth week, the average age being about three weeks. Vomiting is always the first symptom. It may start abruptly but usually does not. It may follow each feeding and is almost always projectile. There may be at first a mere regurgitation of food after meals. Some infants keep down one or more feedings and then vomit up the entire amount. The vomitus never contains bile. It may, however, contain blood. The babies soon become very dehydrated with rapid loss of weight. The urinary output is diminished and constipation with scant hard dry stools is found. Loss of hydrochloric acid may lead to tetany. Of course, there are variations in severity. Loss of twenty to thirty per cent of body weight may occur in two weeks.

Physical Findings

Of course, the general condition of the patient will depend on the duration and severity of the disease. There may be only atrophy and gradual loss of weight or there may be severe dehydration with marked loss of weight. Undoubtedly the most characteristic physical finding is the passage of large peristaltic waves from under the left costal border, across the epigastrium, to disappear on the right side. They are seen after a meal but may be excited by external stimulation of the skin of the abdomen. In addition to the gastric waves, a pyloric tumor can usually be felt. It is usually to the right and above the umbilicus and may be compared to feeling a small olive. The tumor, if felt, is practically pathogenomonic of this condition. Light anesthesia may have to be instituted before there is sufficient relaxation to feel the tumor. On ingestion of barium a large stomach and retention are observed.

---

*Read before the Northeast Mississippi 13-County Medical Society, Pontotoc, Miss., March 15, 1938.

Diagnosis

If the condition is kept in mind the diagnosis is usually very easy. No doubt the most missed diagnoses in this condition are missed because the condition is never thought of. The combination of explosive vomiting starting in the second week of life and becoming increasingly more severe, constipation and scanty urine, progressive loss of weight and desire for food in spite of excessive vomiting form a typical combination history of pyloric stenosis. Add to these, peristaltic waves and the abdominal tumor, and the diagnosis is almost cinched. Still further evidence may be obtained by fluoroscopic observation following a barium meal. The more incipient cases have to be distinguished from such vomit producing things as: too frequent feedings, gastroenterospasm, overdistention of the stomach by swallowed air, too large volume of food, anhydremia, allergy, toxic states, habit or "nervous" vomiting, parenteral infections, appendicitis, intestinal obstruction, etc. Probably the most frequent misinterpretation of pyloric stenosis is that it is caused by a feeding disturbance.

Treatment

Treatment is either medical or surgical. There is a wide difference of opinion as to whether a medical treatment should ever be tried and if so for how long should it be persisted in, in the case of severe stenosis with very little and very slow amelioration of symptoms. Probably in most cases it may be well to try medical treatment which consists in nothing more than thick gruel or cereal feedings and atropinization of the patient. Immediate refeeding of the cereal, if vomiting occurs, should be done and the patient's general condition held up by hypodermoclysis and proctoclysis. In some instances phenobarbital is helpful. Atropine may be pushed to the limit, giving one minim of a 1:1000 solution ten minutes before feeding and increasing one minim each time until flushing or dilatation of the pupil appears. If, in spite of these measures, no gain in weight is achieved, it is not well to wait any longer than two weeks before advising operation. If he continues to lose weight, immediate operation is advised.

Preoperative Treatment

In case of operation it should not be considered an emergency. Preoperative treatment or preparation is perhaps the most important factor in lowering the operative mortality. Without preoperative preparation these cases are poor operative risks. If the baby is in a particularly bad condition, he should be given one or two preoperative blood transfusions, giving fifteen or twenty c.c. of whole blood per kilogram of body weight. Most of these babies have alkalosis with a high concentration of serum carbon dioxide and a low concentration of blood chlorides; therefore, they should all receive from one to six hypodermoclyses of 100 c.c. of physiologic solution of sodium chloride before operation. To this may be added three to five per cent glucose. The hypodermoclyses may be supplemented by proctoclysis. A very poor operative risk may be converted into a fair risk in two or three days in most cases.

Operative Technique

The Fredet-Rammstedt submucous pyloroplasty is the operation par excellence. It may be done in fifteen or twenty minutes with no attempt to hurry. The anesthetic of choice is open ether. Some surgeons prefer local infiltration but this prolongs the operating time and may interfere with wound healing. During operation the body heat should be maintained by hot water bottles. Just before the abdominal incision is made, the stomach should be emptied by forcing a soft rubber catheter, size 18F. The incision should be a high right rectus about 4 cms. long and 1 cm. from the midline and high enough to overlie completely the right lobe of the liver. This not only makes operative closure easier but practically insures against postoperative rupture of the wound. When the abdomen is opened, the tumor is held betwen the thumb and index finger of the left hand. Beginning at the duodenal end and selecting the least vascular part an incision is made through the entire extent of the tumor, through the peritoneum and superficial part only of the circular muscle. The cut edges are then separated with a small forceps until the mucosa completely fills the incision. Hemostasis, if there is any bleeding, may be controlled by packs and if necessary ligatures. The abdominal wall should be closed in layers.

Postoperative Treatment

Maintenance of body temperature after the operation is necessary. The head of the bed should be lowered until recovery from the anesthetic to prevent aspiration of mucus.

Barley water may be given two hours after operation—about half an ounce. Two hours following this five c.c. of breast milk and five c.c. of barley water may be given. The breast milk and barley water are increased

5 to 10 c.c. with each three hours feeding for 48 hours. The breast milk is then increased 5 to 10 c.c. daily until caloric requirements are met. Hypodermoclysis may be given if necessary. The baby may nurse the breast on the fifth or sixth day.

SUMMARY

1. A general discussion of congenital hypertrophic pyloric stenosis is given.
2. Symptoms and signs of diagnosis are given.
3. Preoperative and postoperative treatment is discussed.
4. Operative technique is emphasized.

REFERENCES

1. Donoval "Congenital Hypertrophic Pyloric Stenosis in Infancy." J. A. M. A., August 21, 1937.
2. Marriott. "Infant Nutrition."
3. Eusterman and Balfour. "The Stomach and Duodenum."
4. Downes and Bolling. "Practice of Surgery," Dean Lewis, Volume VI, Chapter 7.

◆

TO APPEAR ON STATE PROGRAM

Below you will find pictures and brief mention of a number of the visiting essayists. We are very sorry we did not receive cuts and histories of every one. They are able men. We are delighted to have them appear on the state program, each and every one.

R. Eustace Semmes, A.B., M.D., F.A.C.S., Johns Hopkins, 1910. Professor of Neurological Surgery, University of Tennessee; Neurological Surgeon, Baptist Memorial Hospital, Memphis, Eye, Ear, Nose and Throat, Crippled Children's, St. Joseph's Hospitals. Consultant, Neurological Surgery, U. S. Marine and Crippled Adults Hospitals. Member American Board of Surgery.

DR. F. E. LEJEUNE

Born August 26, 1894; Graduate of Tulane University, College of Medicine, 1920; M.D. degree Tulane, 1920; B.S. degree, Jefferson College, 1914; M.A. degree, Jefferson College, 1923.

Began study of laryngology at Eye, Ear, Nose and Throat Hospital, New Orleans, May 1921, under the late Dr. R. C. Lynch. Interned there until March 1922, when he became associated with Dr. R. C. Lynch in his office and practice, and remained with him until his death in May 1931.

Hospital Connections: Consultant in Otolaryngology, The Touro Infirmary; Chief of Ear, Nose and Throat Department of Eye, Ear, Nose and Throat Hospital; Prof. of Clinical Otolaryngology at Tulane University.

Dr. James S. McLester, of Birmingham, a past president of the American Medical Association, so well and favorably known that nothing else needs to be said.

DR. RALPH O. RYCHENER

Graduated from the University of Michigan with the degree of A.B. in 1920; and received the degree of M.D. in 1922. Interned at the University Hospital at Ann Arbor through

1923 and 1924, and was instructor in the Department of Ophthalmology at the University of Michigan Medical School in 1925 and 1926.

In August 1926, came to Memphis to be associated with Dr. E. C. Ellett, which association still continues. At present he is assistant professor in the Department of Ophthalmology at the University of Tennessee School of Medicine.

He withdrew from medical school in 1918 to enter Field Artillery Officers Training School at Louisville, Ky., earning the commission as second lieutenant in that branch of service.

He is now a surgeon on the staffs of the Memphis Eye, Ear, Nose and Throat Hospital, The John Gaston Hospital and the Baptist Memorial Hospital.

He is a member of the American Ophthalmology Society, The American Academy, The Memphis and Shelby County Medical Society, The Southern Medical Association, The Tennessee Academy of Ophthalmology and Otolaryngology, and for the past three years have been a member of the program committee of the Mid-South Post- graduate Medical Assembly.

Dr. W. S. Leathers, Dean of Vanderbilt School of Medicine, the nestor of the School of Medicine of the University of Mississippi in its infancy and early childhood, a sound and an efficient builder.

Dr. Isidore Cohn, Professor of Surgery and Director of the Department of Surgery in the graduate school of L. S. U. School of Medicine. What people know about Dr. Cohn in more than we can say. His subject is "The Making of a Surgeon". You will want to hear him.

Dr. Menville is a member of his parish and state medical societies, the Southern Medical Association, the American Medical Association, Societe de Radiologie Medicale de France, the American Roentgen Ray Society, the American Radium Society, the Society of Experimental Biology and Medicine, the Pan-American Medical Society and Louisiana State Board of Medical Examiners; vice-chairman of the Section of Radiology of the A. M. A.; committee member of the American Congress of Radiology; sectional committee member of the "Definition of Electrical Terms" sponsored by the American Institute of Electrical Engineers; past vice-president for Radiology, Pan-American Medical Association; past vice-president and Chairman of Executive Committee of the Radiological Society of North America; past president of Louisiana State Radiological Society; Gold Medalist of the Radiological Society of North America and the Louisiana Academy of Science; member of the Phi Chi (medical fraternity); honorary member of the Omicron Delta Kappa, A. O. A., Pi Gamma Mu. Dr. Menville is Professor of Radiology, Tulane University School of medicine. He is on the editorial staff of the *American Journal of Cancer* and Editor of *Radiology.* He is at present the Vice-President of the American College of Radiology.

MAXWELL E. LAPHAM

Graduated University of Pennsylvania School of Medicine, 1925. Internship, Presbyterian Hospital, Philadelphia, 1925-1927.

Graduate work in obstetrics,, University of Pennsylvania, 1927-1929.

Instructor in obstetrics, University of Pennsylvania School of Medicine, and assistant in obstetrics, University of Pennsylvania Hospital, 1929-1932.

Visiting obstetrician, Philadelphia Lying-In Hospital, 1929-1932.

Field instructor in obstetrics in Virginia and Mississippi, 1932-1936.

Director of Division of Medical Extension and Assistant Professor of Obstetrics, Tulane University of Louisiana School of Medicine, since 1937.

MASONS HONOR DR. McDOUGAL

Dr. L. L. McDougal, Sr., went to Meridian Monday to take the K. C. C. H. which is a part of the Thirty-Third and last degree in Masonry, he being the only man ever so honored from Prentiss County. Dr. McDougal has always taken a very active interest in the local lodge here and state meetings as well. He is a native of Kemper County, but has resided in this county for about thirty-five years, in Booneville for twenty-five or more, except for a brief absence at the State Hospital as a member of its staff. He met with his best fortune when he married Miss Lula Smith, of Prentiss County, on October 12, 1905.

Dr. and Mrs. McDougal have a trio of very fine sons. Myres, the oldest, is a graduate of Ole Miss., of Oxford, England and Yale, and is now teaching law in Yale. Dr. Luther, Jr., is a graduate of Ole Miss and Vanderbilt and after spending several years in the east interning and taking special work in pediatrics, is now located in Paris, Texas, in the practice of his chosen specialty. Smith, the youngest son, is a graduate of the University of Illinois and is now located with his uncle in Alaska in the mining business, and teaches in the University of Alaska.

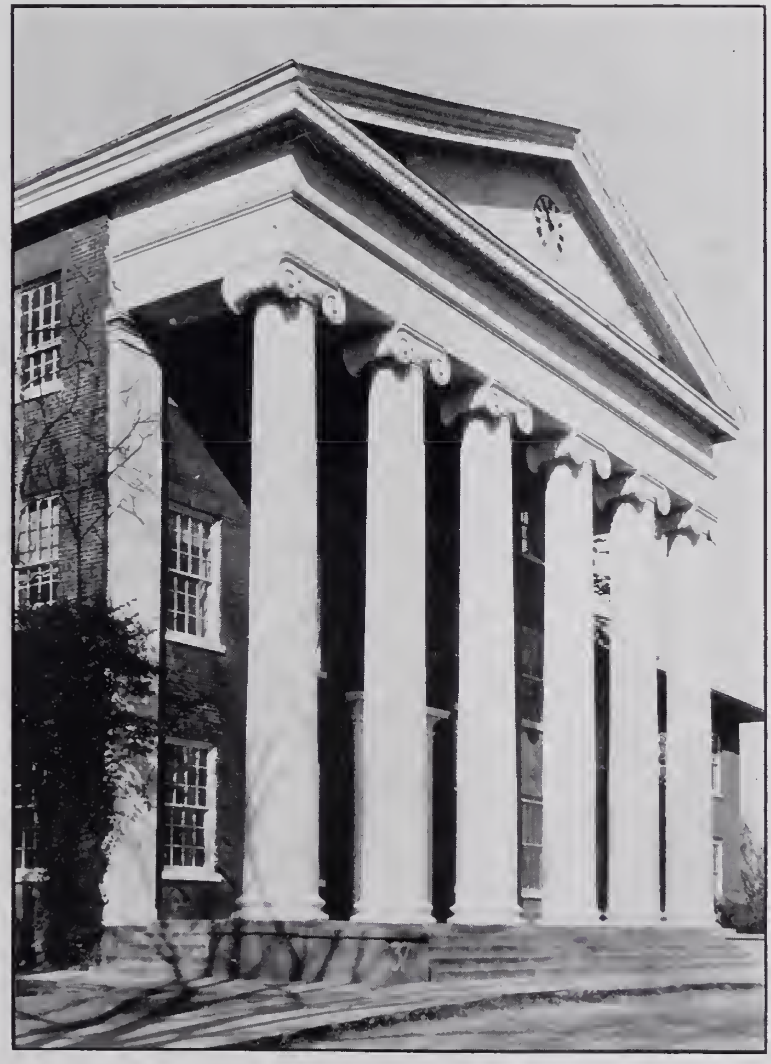
We congratulate Dr. McDougal on this high honor and this distinction. Prentiss County appreciates this outstanding award to one of its splendid citizens. We further congratulate Dr. and Mrs. McDougal on the success attained by their three fine sons who have already gained distinction and still are climbing the ladder of fame steadily. — The Booneville Independent.

DR. BETHEA DIES

In the death of Dr. Bethea, of Hattiesburg, the medical profession lost a fine practitioner and the state a good citizen. He was a man of poise and good business judgment. He was richly endowed with good common sense. He served his people well as a practitioner and in good citizenship he left a fine monument. His large family of ten children broadened his understanding, seasoned his sympathies, and augmented his natural fitness to enter into the joys, the pleasures and the reverses of his clientele. Like the trusted family horse he was good any where any time, when the interest of his people were at stake. We congratulate the family on the legacy of service left them and sympathize with them in the loss of a father so full of love and sympathy and interest.

THE UNIVERSITY OF MISSISSIPPI SCHOOL OF MEDICINE

In this issue of THE MISSISSIPPI DOCTOR a special feature is made of the University of Mississippi School of Medicine, which, early this year, was restored to class A rating with other accredited two-year medical schools over the country. Pictured here is the facade of the Lyceum or Administration Building, first building erected on the campus, and used during the Civil War for a hospital. This building, a true example of Southern architectural integrity, symbolizes not only the scholarly culture of the Old South, but also attests the pioneering guidance which has shaped the scope and destiny of the entire university. Through its central spaciousness a well-planned unity has been preserved in the expansion on the campus, which is the South's second most beautiful. The Medical School has the opportunity and the equipment for a much wider range of extra-mural influence. The faculty, the library, the splendid set-up of buildings and equipment presage a bright and worthy future.



THE LYCEUM OR ADMINISTRATION BUILDING
Erected in 1848

The University of Mississippi School of Medicine has been readmitted to full standing by the accrediting associations and this is taken as occasion to present a description of its present faculty and facilities. The school has emerged from a series of unusual difficulties which have, as a final result, served to improve its position. A special appropriation from the Legislature has made it possible to install new equipment and to strengthen the faculty so that it can now function more effectively than at any time in its history. The present organization, after being subjected to detailed inspection. has been fully approved as a class A institution by both the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association.

THE MEDICAL SCHOOL BUILDING

This recently constructed building houses the dean's office, the Rowland Medical Library, the Departments of Bacteriology, Pathology, Pharmacology, Physiology and the Out-Patient Clinic. The University Student Health Service with its Hospital Ward is also in this building.

In addition to specific features of improvement in this Medical School, the general position of two-year medical schools has been significantly strengthened. The organization of the first two years of medical instruction as a separate administrative and instructional unit has recently been a subject of controversy. It has been contended that the number of medical schools should be diminished and that the two-year schools, teaching only the basic sciences, were seriously handicapped by the lack of direct contact with the final two years of medical instruction. This controversy has brought out the fact that there is preponderant sentiment in favor of continuing all medical schools that are adequately equipped. The possible handicap due to the lack of clinical facilities has been answered in the case of the University of Mississippi by a more effective utilization of those facilities which are available. Pathological material is collected from various hospitals of North Mississippi, autopsies are conducted on cases obtained from the Mississippi State Hospital, an out-patient clinic is conducted by the Medical School staff, and regular days are assigned for observation of operations and interesting medical cases in the two hospitals of Oxford. In addition, the students are scheduled to spend part of one quarter in the State Sanatorium for Tuberculosis at Magee and in the State Hygienic Laboratory in order to gain further experience in physical diagnosis and laboratory diagnostic procedure. The extent of clinical contacts thus afforded include more than the usual recommendations and needs for the first two years of the medical course.

The relation of two-year schools to those giving the last two years has been more favorably defined. Most of the full four-year medical schools are in position to instruct a greater number of students in the last two years than in the first two. Clinical material is usually provided by state or city supported charity hospitals, the instruction is usually provided by practitioners whose part-time services are ordinarily contributed with relatively less expense to the school. This is in contrast to the first two years of medicine in which laboratory courses must be operated and full-time instructional staffs maintained. The concentration of clinical teaching in the large metropolitan centers is a natural development and can be effectively co-ordinated with the teaching of the basic medical sciences in two-year schools that are connected with and receive the advantages of university associations. The policy of The Rush Medical College in Chicago is an outstanding demonstration of this type of co-ordination. This prominent institution, with abundant clinical facilities, has for a great many years offered only the last two years of the undergraduate medical course.

The two-year medical schools have been leaders in some phases of medical education. One such instance is the teaching of Pharmacology by the experimental laboratory method. Such departments were established in North Carolina and Mississippi in 1905 and 1906, respectively. This progressive move was considerably in advance of the other Southern Medical Schools.

The growing tendency of private schools to limit their entering classes and the policy of some of the state university medical schools to enroll only native-born citizens of their state make it imperative that the State of Mississippi support its School of Medicine at the University. With the present system, the youth of Mississippi can have assurrance that those who are properly qualified can enter the Medical School at their State University, can have the advantages of scholastic association with their future colleagues in the State and, after the completion of the first two years of the medical course, can find a place in those larger institutions specializing in clinical instruction.

SCIENCE BUILDING

This building formerly housed all departments of the Medical School. It is now occupied by the Department of Anatomy and is shared with Biology and Psychology.

Since its founding in 1903 the Medical School of the University has graduated about six hundred students, a large proportion of whom are now practicing in the State. There is strong sentiment among these graduates in favor of the type of education provided in this institution.

While it is true that all graduates of the school do not return to practice in the state, a high proportion of them do and there is no question but that attendance at the State University Medical School is an important influence in retaining the best professional talent of the state. The medical profession of any state is an important financial asset and it is becoming increasingly evident that considerable funds pass across state boundaries due to the public desire to receive treatment in those localities where the medical profession has reached the highest level of service. The necessity for going out of the state to obtain special surgery and medical treatment

THE CHEMISTRY AND PHARMACY BUILDING

The Department of Biochemistry is located in this building, which contains over 45,000 square feet of floor space, is equipped with 17 systems of piping and is thoroughly modern throughout.

THE ALEXANDER L. BONDURANT GRADUATE SCHOOL BUILDING

The administrative offices of the Graduate School are housed in this building. The auditorium is used for public meetings of the Medical School and the North Mississippi Medical Society.

is necessarily diminished and the instances of those coming into the state for medical attention are necessarily increased wherever there are professional encouragements to a spirit of state loyalty. That the University of Mississippi Medical School is a conspicuous example of such type of encouragement is particularly evidenced by the high proportion of its graduates who are outstanding in the medical affairs of the state.

The activities of a university medical school are recognized to be of definite value to the profession of the state in which it is operated. It serves as a focal point for the more scientific interests of the profession and it is a good influence in restraining the growth of unorthodox and unscientific cults and healing systems.

The medical school profits significantly from its association with the University. The various functions and needs of a school, such as dormitory and recreation facilities, building repairs and maintenance, general library, registration and bookkeeping are most efficiently administered when the school is a division of the university. Since the basic medical sciences have much in common with the pure sciences, there are distinct advantages to be derived from the association with other scientific departments. Particularly close relationships are those of anatomy with biology, physiology with chemistry and physics, biochemistry with pure chemistry, and pharmacology with pharmacy and chemistry.

The advantages of these relationships, in turn, are reciprocated by the Medical School. The eight actively functioning laboratory sciences operated by the Medical School constitute a prominent addition to the scientific status of the University. In fact, it is the association of advanced professional schools that distinguishes the university from a college. These general relationships have been particularly emphasized by Dr. W. DeB. MacNider, a member of the National Academy of Sciences and a former president of the American Society for Pharmacology and Experimental Therapeutics. Professor MacNider says, "The two-year medical school, properly conceived and executed, has a position of dignity in its own right, and in addition is essential to the intellectual life of a University, especially at the graduate level of instruction. This relationship . . . has been in operation for centuries at the Universities of Oxford and Cambridge."

Specifically, the Medical School is contributing a number of important items of co-operation to the University of Mississippi. Courses in bacteriology, physiology, materia medica and pharmacology are being taught to the pharmacy students. Graduate courses leading to the master's degree have been conducted by the Medical School staff; a number of such graduates are now teaching in various colleges of the state. The professor of biochemistry also conducts courses in advanced chemistry and is head of the Department of Chemistry. The Medical School directly contributes to the salary of the resident medical officer and, in addition, the specialiged facilities of the school are used by the general student health service. Pathological and laboratory diagnoses, basal metabolism tests and electrocardiographic and x-ray examinations by the medical staff make the health service exceptionally complete and effective.

A reasonably detailed description of the personnel and physical equipment of the school is given in the following pages. An analysis of this material is believed to support the conviction that the School of Medicine of the University of Mississippi is not merely an acceptably accredited school, but that it is actually doing instructional work which compares favorably with that of the best schools in the country.

ADMINISTRATIVE OFFICERS

Alfred Benjamin Butts, Ph.D., LL.B., Chancellor of the University. Dr. Butts is a graduate of Mississippi State College, Columbia University Department of Public Law and Yale University School of Law. Before coming to the University in 1935, he was vice-president of Mississippi State College. He is widely recognized as a progressive administrator and has been particularly active in promoting the professional and graduate school status of the University. The Medical School places its entire confidence in his able leadership.

B. S. Guyton, M.D., Oph.D., F.A.C.S., Dean of the School of Medicine, Professor of Minor Surgery. Dr. Guyton has received successively the degrees B.S., Mississippi College, B.S., University of Mississippi, M.A., University of Mississippi, M.D., University of Virginia and Oph.D., University of Colorado and has done postgraduate work at the University of Vienna. Before assuming the deanship he was for five years professor of pathology and bacteriology and for ten years instructor of minor surgery in the University of Mississippi School of Medicine. He has published articles on his specialty in the American Journal of Ophthalmology, Transactions of the American Association of Ophthalmology and Oto-Laryngology, the New Orleans Medical and Surgical Journal and the Transactions of the Mississippi State Medical Association.

Member: North Mississippi Medical Society, Mississippi State Medical Association, Mid-South Postgraduate Assembly, American Medical Association, Louisiana-Mississippi Ophthalmology and Otolaryngology; American Academy Ophthalmology and Otolaryngology; Fellow, American College Surgeons.

FACULTY

Peter Whitman Rowland, M.D., F.A.C.P., Professor of Pharmacology, Field Director of the Medical Library. Dr. Rowland was graduated from the Memphis Hospital College of Medicine and subsequently did post-graduate work at the New York Polyclinic and the University of Chicago. While serving as president of the Mississippi State Medical Association, he appointed a committee to confer with Chancellor Fulton regarding the creation of a medical school at the University. When the school was subsequently founded in 1903, Dr. Rowland was appointed by the board of trustees to serve as professor of materia medica. In 1908 he organized the department of pharmacology and was named professor and head of the department of pharmacology. When the department was organized at that time, there were very few such departments in the country and this can properly be considered one of the very first separately organized pharmacology departments giving experimental laboratory instruction. Dr. Rowland also served as a member of the State Board of Health during the period 1900-1908 and acted as university physician during the period 1908-1925.

Over an exceptional period of years Dr. Rowland has rendered conspicuous service in advancing and maintaining the standards of medical education in the state.

Member: Mississippi State Medical Association (Past President); American Medical Association; Southern Medical Association; Mid-South Postgraduate Medical Assembly (Past President); Fellow American College of Physicians.

G. H. Woollett, B.S., M.S., Ph.D., University of Minnesota, Professor of Organic and Physiological Chemistry, has been connected with department since 1916 with the exception of two years spent teaching at the University of Minnesota.

Dr. Woollett published about eleven articles dealing with the chemistry of phenols and such other antiseptics as thymol iodide and phenyl mercuric nitrate, most of which have appeared in the *Journal of the American Chemical Society.*

Member: The American Chemical Society; Fellow A.A.A.S.; Sigma Xi and Mississippi Academy of Science.

James Burdine Looper, Ph.D., M.D., Professor and Head of the Department of Anatomy. Professor Looper has received successively the degrees of B.S., Furman University, Ph.D., University of Virginia and M.D., University of Chicago.

As a teacher, he has served on the biology staff of Furman University and the University of Virginia and on the anatomy staff in the University of Tennessee, School of Medicine. In 1926 he came to the University of Mississippi School of Medicine as associate professor of histology and embryology and has served with the rank as professor since 1929.

The Boston Society of Natural History, in 1929, awarded Professor Looper the First Walker Prize for research in zoology.

He has published research articles on: Food reactions in the protoza; cytoplasmic fusion; reproduction in hydra; lymph nodes; thymus of the turtle, alligator and snake; caeca of the bantam fowl; and the reticulum in the gonads of the rat.

Member: Phi Beta Kappa and Sigma Xi honorary societies, the Phi Chi medical fraternity; the American Association of Anatomists and a number of other scientific organizations.

H. J. Gondolf, M.D., Professor of Bacteriology. Dr. Gondolf received the M.D. degree from Tulane University in 1913 and interned at Charity Hospital and the U. S. Marine Hospital at New Orleans. He has been successively, House Medical Officer of the United Fruit Co. Hospital at Bocas del Toro, Panama, 1915-16; Instructor in Clinical Pathology, Tulane University, 1917-18; Assistant Pathologist, U. S. Base Hospital 102, A.E.F., Italy, 1918-19; Instructor Clinical Pathology, Tulane University, 1919-24; Assistant Pathologist, Charity Hospital, New Orleans, 1924-26; Full time Pathologist Charity Hospital, 1927-29; Professor of Pathology and Bacteriology at the University of Mississippi School of Medicine, 1930-37.

W. F. Potter, Professor and Head of Department of Physiology. A. B., A.M., Ph.D., University of Kansas. Dr. Potter completed approximately five of the required six quarters of medical work for the M.D. degree at Rush Medical College of the University of Chicago. His teaching experience covers a period of five years as instructor in physiology at the University of Kansas, three years as assistant professor of physiology and pharmacology at the University of Georgia, School of Medicine, one summer as associate professor of physiology at Georgetown University, Washington, and four years as professor of physiology at the University of Mississippi. His chief field of investigation has been the relationship between the conditions present in para-thyroprivia and conditions present in cases of guanidine poisoning. Recently he has been studying the hormone mechanisms concerned in antidromic vasodilator phenomena and the parasympathetic effects upon liver functions.

Member: Phi Beta Kappa, the Society of the Sigma Xi and A.O.A.

Robert P. Walton, Professor and Head of Department of Pharmacology.

B.S. Centenary College, M.A., Ph.D. Columbia University; medical work, University of Chicago and University of Minnesota. Before coming to the University of Mississippi in 1937, Dr. Walton was for eight years second in the department of pharmacology, Tulane University School of Medicine with the successive ranks of instructor and assistant professor. During the winter quarter of 1936, he conducted the courses in pharmacology at the University of Tennessee School of Medicine and he has been appointed for this summer as visiting lecturer in the department of pharmacology, University of Chicago. He spent one quarter observing teaching and research methods in the European laboratories of pharmacology. While at Columbia University, he published two books, the first *A Comprehensive Survey of Starch Chemistry* included the collaborative work of a number of scientists in this country and Europe; the second was a translation and extension of the monograph *Enzyme Actions and Properties* by investigators at the University of Munich. He has in process of publication a book entitled *The Marihuana Drug Habit* and has published in various journals of pharmacology and experimental therapeutics about twenty articles dealing particularly with the prevention of peritoneal adhesions, immunity reactions to enzymes, enteral absorption of insulin, effects of opiates on intestinal tone, sublingual absorption of drugs, diuresis, urinary antiseptics and narcotics.

Member: The American Society of Pharmacology and Experimental Therapeutics, the Society for Experimental Biology and Medicine, the American Chemical Society (past president of the Louisiana Section), the Society of the Sigma Xi and the Alpha Kappa Kappa medical fraternity.

Robert M. Moore, M.D., Professor and Head of the Department of Pathology and Clinical Diagnosis. Dr. Moore received the M.D. degree from the University of Tennessee in 1931 and completed the rotating interneship at the Baptist Memphis Hospital. Subsequently at the Memphis General Hospital he was assistant resident pathologist and resident pathologist. He was successively assistant instructor in pathology, instructor in pathology and bacteriology in the University of Tennessee and assistant professor of pathology, University of Missouri. He has published articles on obliterating syphilitic arteritis, benign tumors of the small intestines, primary colloid adenocarcinoma and the relationship of tuberculosis and malignant tumors; these have appeared in the *Journal of the American Medical Association,* the *Southern Medical Journal,* the *Annals of Otology, Rhinology, and Laryngology,* and the *American Review of Tuberculosis.*

Member: Tennessee and Missouri State Medical Societies, Southern Medical Association.

Dr. Archibald Ray Buchanan was born in Gordonsville, Minnesota and was granted the Bachelor of Science and Doctor of Medicine degrees by the University of Iowa. From 1929 to 1936, he served as demonstrator, lecturer, assistant, instructor and associate in the department of anatomy at the University of Iowa Medical College. During the year 1936-3, Dr. Buchanan was associated with Dr. S. W. Ranson at the Institute of Neurology, Northwestern University Medical School. While there the graduate school of that institution granted him the degree, Master of Science. From the Institute of Neurology, Dr. Buchanan accepted the appointment as professor of anatomy at the University of Mississippi School of Medicine. He holds an in absentia appointment for the current year in the Institute at Northwestern University, where he expects to spend the summer of 1938 in coninuing research begun there.

He has read scientific papers before the American Association of Anatomists, the Chicago Neurological Society, the Iowa State Medical Society and several county medical societies. He has published papers in *Science, Archives of Neurology* and *Psychiatry, Journal of Comparative Neurology, Laryngoscope, Proceedings of the Society for Experimental Biology and Medicine* and other scientific journals. His research has been devoted to the paranasal sinuses, the cytology of the nervous system and the anatomy and physiology (normal and pathological) of the vestibular system.

Member: Sigma Xi, honorary scientific fraternity, the Iowa State Medical Society, The American Association of Anatomists, the Iowa State Medical Society, the Iowa Academy of Science, the Illinois Academy of Science, the American Association for the Advancement of Science, Nu Sigma Nu Medical Fraternity and Fellow in the American Medical Association.

James Reagan Simms, Jr., M.D., Assistant Professor of Pathology and Bacteriology, Director of Clinics.

Dr. Simms received from Emory University the degrees of B.S., M.S., and M.D., and from the University of Mississippi the degree of Ph.C. He has served as intern and resident in surgery at the Crawford W. Long Memorial Hospital, Atlanta, Ga., and has taken a post-graduate course in surgery at the Harvard Medical School. At the University of of Mississippi since 1924 he has been successively assistant professor of chemistry (including physiological), assistant professor of bacteriology and physiology, School of Pharmacy, associate professor of same, professor of bacteriology and pathology and, since 1933, assistant professor of bacteriology, and pathology and director of Out-Patient Clinics. He has published articles on symptomatic agranulocytic angina and obstetrics anesthesia in the *New Orleans Medical and Surgical Journal* and in *The Mississippi Doctor.*

Ashford Hunter Little, B.S., M.D., Assistant Professor of Medicine, Physical Diagnosis and Obstetrics.

Laura D. Ladd, B.A., Instructor in Anatomy.

Lynn D. Abernethy, B.S., M.D., Instructor in Physiology.

Vernon B. Harrison, B.S., M.D., Certificate in Public Health, Lecturer in Public Health.

Henry Boswell, M.D., Adjunct-Professor of Physical Diagnosis.

Theodore Wilbert Kammerer, M.S., M.D., Adjunct-Professor of Clinical Laboratory Diagnosis.

John C. Culley, B.A., M.D., F.A.C.S., Associate in Clinical Surgery.

Eugene S. Bramlett, B.A., M.D., Associate in Clinical Surgery.

George Arnold Brown, M.D., F.A.C.S., Associate in Clinical Surgery.

Felix E. Linder, B.S., M.D., Associate in Clinical Medicine.

Eugene Venable Bramlett, B.A., M.D., Associate in Clinical Medicine.

Earl Webster Green, M.D., Research Associate in Anatomy.

C. Frank Lacey, M.D., Associate in Pharmacology.

Ross Jeffress, A.B., Graduate St. Louis Library School, Librarian.

Doris Winn, B.S., Technician in Pathology and Bacteriology.

A. B. Cullen, B.A., Technician in Pharmacology and Physiology.

Mary Ferrell, Technical Assistant in Bacteriology, Pathology, and Clinical Laboratory Diagnosis.

Ernestine Shaw, Technical Ass't. in Anatomy.

Louise Woods, Secretary to the Dean.

Student Assistants

Travis D. Love, Pathology and Bacteriology.

Floyd M. Davis, B.A., M.S., Physiological Chemistry.

Gustavus A. Bynum, B.A., Anatomy.

James B. Smith, B.S., Anatomy.

THE LIBRARY

In January 1937 the Medical Library moved into its new quarters in the north wing of the Medical School Building. The library has been equipped throughout with new shelves and furniture. A special feature is the indirect lighting system which is so arranged that all parts of the rooms and shelves get adequate light. Two individual study rooms and the librarian's office adjoin the main reading room. A connecting stack room with capacity of 4,000 volumes will be ready for use some time next year.

The librarian, Miss Ross Jeffress, serves full time and has four assistants. She is a graduate of the St. Louis Library School and came to the University from the New York Public Library. Miss Jeffress is a native Mississippian and has had a number of years of experience with libraries in the state.

During the last year and a half, 700 monographs and texts have been added; a good proportion of these are selected treatises in their latest editions. The library also has over 1700 bound volumes of journals and about 200 other volumes are ready for the bindery. Approximately 100 current journals are received regularly.

The library is working toward a plan of offering its services to the physicians of the state. With the present substantial collection of recent monographs this should be a useful service. Where possible, duplicates of journals are being bound and a file of reprints of valuable articles in the field of clinical medicine and surgery has been started. By 1939, it is hoped that this phase of the library's plan will be sufficiently developed to be of real value.

Much of the expansion of the library has been due to the active work of Dr. P. W. Rowland, Field Director of the Medical Library. In June 1937, Dr. Rowland conceived the idea of presenting the needs of the library to the members of the Mississippi State Medical Association and the former students of the Medical School. The proposal was that each physician give to the library one book or its equivalent in money. Through such co-operation, the library has been able to add this year about 200 new books including texts, monographs and books of general medical interest. Also through Dr. Rowland's efforts several private libraries have been donated to the school. Many of these contained valuable historical material and journals which could be used in completing the files.

In recognition of Dr. Rowland's years of service to the school and to the library, the trustees of the University have recently approved a proposal to name the Medical Library the "Rowland Medical Library."

AUDITORIUM GRADUATE BUILDING
Used for public meetings of the
Medical School

LECTURE ROOM
One of the three lecture rooms used exclusively
by the medical school.

ROWLAND MEDICAL LIBRARY

THE PHYSICAL EQUIPMENT

The recent installation of new equipment has made it possible to introduce the latest developments in apparatus and technique. Modern improvements and standardized production of medical school equipment has progressed significantly in the last few years. Every effort has been made to take advantage of this situation.

DEPARTMENT OF ANATOMY

The Department of Anatomy occupies the entire third floor and parts of the first floor and basement in the Science Building. It includes a gross anatomy laboratory, a microscopic laboratory, two large technical laboratories, a lecture room, an animal room, an animal surgery room, a photographic room, an embalming room, a cadaver storage room and three staff offices.

The gross anatomy laboratory is located at the east end of the third floor and is large enough to accomodate about thirty students. Besides having windows on three sides, it has a large skylight. The floor is concrete, facilitating easy cleaning. The equipment includes modern humidor dissecting tables, some sixty anatomical models and as many charts, five completely articulated skeletons, a large series of x-rays and one well-preserved cadaver for each two students. Adjoining the dissecting room is the lavatory with washstands and individual lockers. A glass-doored cabinet in this room houses a large number of non-articulated skeletons and a supply of disarticulated head bones.

Technical Laboratories. One of these laboratories is located on the first floor and the other on the third floor. Their equipment consists of five microtomes, including one sliding microtome suitable for celloidin-embedded tissues and four rotary microtomes for paraffin-embedded tissues. An adequate supply of chemicals for proper fixation and staining of all types of tissues is maintained. In these laboratories, practically all the slides included in the student loan sets for histology, embryology and neuro-anatomy have been prepared and are being prepared. In addition to routine histological technique, large numbers of microscopic slides must be prepared in these laboratories from tissues of research animals.

GROSS ANATOMY DISSECTING ROOM

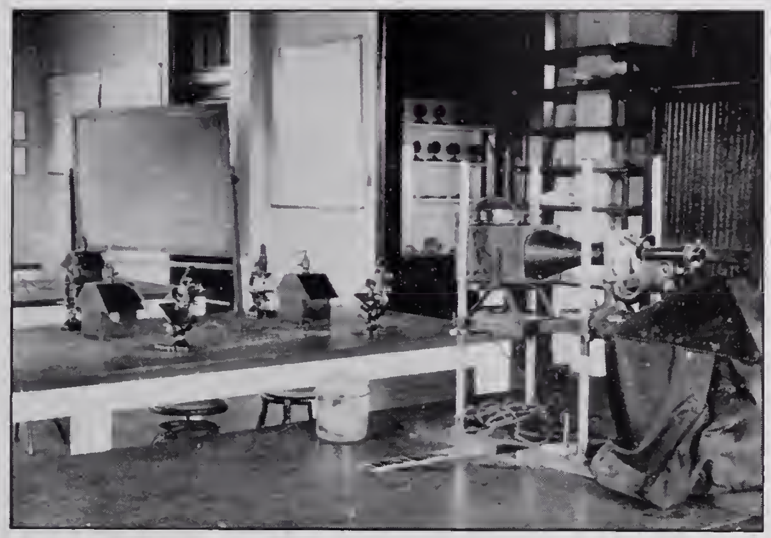
The animal room is on the third floor, is large, well ventilated and equipped with wire mesh cages which house a colony of rats and a considerable number of guinea pigs.

The animal surgery room is conveniently located on the third floor and is equipped with two instrument sterilizers, operated by electricity, and one large steam autoclave suitable for sterilization of gowns and drapes. A glass instrument case houses a good supply of special surgical instruments.

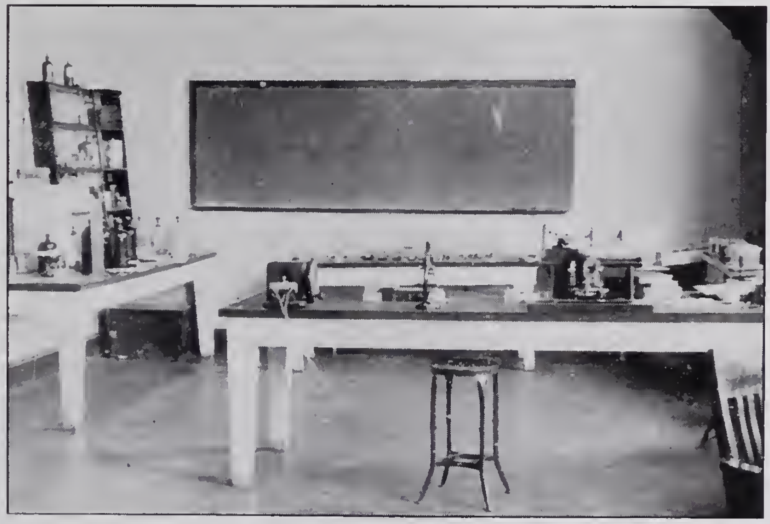
The embalming and storage rooms are located on the basement floor. Embalming solutions are prepared on the third floor and the necessary pressure for injection into the cadaver is developed by allowing the fluid to flow from the third floor to the basement. Three concrete vats are available for storage of the injected cadavers and are filled with a suitable solution for indefinite preservation of the material. The capacity of the vats is approximately thirty cadavers, thus providing an adequate supply of material for student and graduate dissection. Cadavers are obtained from the State Insane Hospital at Jackson.

The Photographic Room is also located in the basement. It is completely sealed from all light and is equipped with all the necessary materials for ordinary photographic technique. There is also a research microscope and photomicrographic equipment, thus facilitating the photographing of microscopic slides.

The Lecture Room is located at the south end of the third floor. It has a seating capacity for forty students and is equipped with a large delineascope, lantern slide projector and microprojector. Suitable screens are available for use with these machines. Adequate anatomical charts and models for teaching purposes are conveniently available.



HISTOLOGY LABORATORY



TECHNIQUE LABORATORY

The histology, neurology and embryology laboratories are located at the west end of the third floor and have large windows on three sides. This room is equipped to accomodate thirty students. Thirty modern microscopes are on hand for rental to students and for demonstrations. Daylight lamps are supplied for the use of the students as well as numerous charts and models. The embryology and histology museum is in an alcove connected with the laboratory. This museum contains a considerable number of human embryos, fetuses, and congenital anomalies.

Three offices for members of the staff are located separately on the third floor.

BIOCHEMISTRY LABORATORIES

The laboratories for biochemistry are located in the Chemistry and Pharmacy Building and share in the general services provided in this building.

A group of nine rooms is reserved for the exclusive use of biochemistry. These consist of:

Main Laboratory.—A well lighted room 30x 65 feet containing five modern laboratory work tables which will accomodate 30 to 40 students at one time; one elevated demonstration desk; six hood units with forced exhaust, three special purpose sinks, centrifuge, colorimeter stands, refrigerator, reference library shelf, bulletin boards and blackboard.

Preparation Room.—10x20 feet containing one work table, storage shelving and special apparatus for preparing materials for class work.

Balance Room.—10x20 feet containing ten Becker Chainomatic Balances on stone topped tables and one electric drying oven.

Research Rooms.—Four are provided, each having the same equipment as the preparation room.

Animal Room.—In basement, 10x20 feet, containing cages, food storage facilities and water supply.

Office and private laboratory, each 10x20 feet.

Lecture room, recitation rooms, stock rooms, etc., are shared with the chemistry department. Much special apparatus is kept in a stock room reserved for the work in biochemistry.

BIOCHEMISTRY LABORATORY

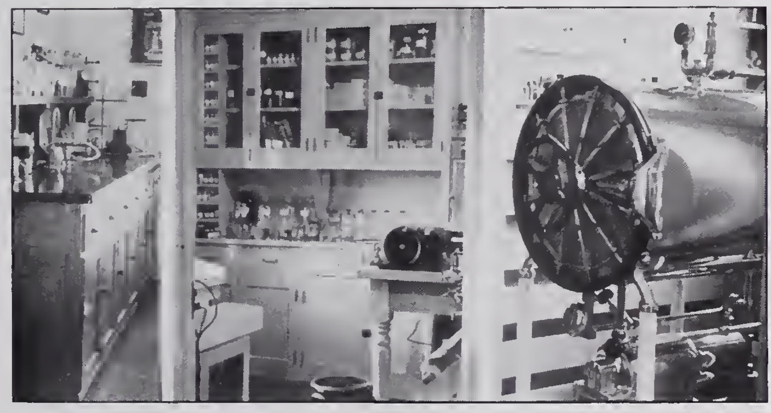
LABORATORIES OF BACTERIOLOGY, PATHOLOGY, AND CLINICAL PROBLEMS

These departments occupy the entire south wing of the second floor of the Medical School Building. One large room with windows on three sides is used as a general student laboratory. It is equipped with new desks, stools, and lockers for twenty-eight students. Each desk is supplied with gas, electrical connections, and a sink with running water. Thirty new microscopes for student use have recently been added to the equipment. This laboratory contains a large electrical incubator, an electrical refrigerator, and a display box for lantern slides. Adjoining this laboratory, on the west side of the building, is a stock room and animal room for bacteriology. Next to this is a preparation room equipped with an electrical autoclave, a dry air sterilizer, and Arnold sterilizer, an inspissator, a water still, and an electrical stove. Adjoining this is the office of the professor of bacteriology.

On the same side of the building is a large room with sufficient shelving space to display gross pathological museum specimens. This museum contains an adequate number of well selected, mounted specimens, and it is also supplied with a large number of gross specimens stored in eathenware jars which are available for individual student handling and study. This room also contains a blackboard, projection screen, and microprojector; it is used as an assembly room for round table discussion of current topics and literature.

On the east side of this wing, adjoining the general student laboratory, is a wash room with adequate locker space and shelving

Sectional views of the Student Laboratory of Pathology, Bacteriology and Clinical Diagnosis.



Sectional views of the Laboratories of Pathology, Bacteriology and Clinical Diagnosis.

MUSEUM OF PATHOLOGY

NECROPSY ROOM

for supplies for pathology and clinical laboratory diagnosis. Immediately adjacent to this is a room adequately equipped for the preparation, sectioning, and staining of pathological tissues. This room is provided with a frozen section microtome, two paraffin ovens, and a rotary microtome for paraffin-embedded tissue sections. Adjoining this is a room fully equipped for the carrying out of all laboratory procedures and for research work. Next to this room and opposite the museum is the office of the professor of pathology. In connection with these departments there is an autopsy room on the ground floor which provides space for thirty students. This room contains a modern refrigerator for the storage of bodies and an autopsy table of the latest design, with hot and cold water supply and adequate drainage. The necropsy instruments are plentiful and of excellent selection. The entire room is thoroughly ventilated and illuminated. The general lecture room is also situated on the ground floor, is well illuminated and ventilated, and is provided with a projection screen, lantern slide projector, and delineascope. These departments can supply each student with a microscope and all other apparatus, materials, and reagents necessary for routine work in bacteriology and pathology.

PHARMACOLOGY LABORATORIES

The Pharmacological Laboratories are located on the first floor of the Medical School Building, chiefly in the north wing. The laboratories for physiological work are specially tiled, well-lighted, and directly connected with an adjoining office, the store-room and the animal rooms. These laboratory rooms are provided with large sinks, a hood with forced draft for smoking kymograph paper and an electric refrigerator. Each student desk has individual connections for gas, compressed air, vacuum, timing circuit, low-voltage, direct current and house current. Exhibit shelves lining the walls contain over 1,000 of the latest

SPECIAL EXPERIMENTAL LABORATORY PHARMACOLOGY

PHARMACOLOGY LABORATORY
One of the two communicating rooms used for physiological exercises.

Sectional views of the PHARMACOLOGY LABORATORIES representative drugs grouped according to their therapeutic uses. Materia medica and chemical pharmacology is taught in a special chemical laboratory which has working desk space for about 48 students. In the same wing of the building are another office, a chemical store room and a research laboratory equipped for both chemical and physiological experimentation. This department has recently renovated for its use the animal house to the rear of the Science Building; these animal quarters include over 1,500 square feet of concrete floor space. Special equipment includes a Foregger gas anesthesia machine with attachments for closed system anesthesia, a MacKenzie polygraph, some late model electric kymographs, a Van-Slyke volumetric gas analysis apparatus and an electrocardiograph of the Hindle type, which latter is installed in a separate laboratory with adjoining dark room. Most of these fixtures and considerable new equipment were installed during 1937.

In addition to provision for routine student exercises, the facilities are such that students can be given special elective projects such as the study of the pharmacological variations of spinal anesthesia, closed system gas anesthesia, heart-lung preparations, fistula experiments, etc.

PHYSIOLOGY LABORATORIES

The main laboratory of physiology is situated on the second floor at the end of the south wing of the Medical School Building. There are closely spaced windows around three sides of this room and in addition there is good overhead artificial lighting. Each student desk is fitted with outlets for high and low tension electrical currents as well as with low tension connections for time signals controlled from a central clock in the store room. Gas, compressed air, and vacuum connections are supplied to each desk. A large centrifuge, an electric refrigerator, and sinks with hot and cold water, are conveniently placed in the room. A preparation room with frog tanks and other necessary equipment adjoins this laboratory.

All mammalian work is carried on in a separate room which has been equipped especially for this type of experimentation. In this mammalian laboratory are ruggedly built operating tables fitted with low and high tension electrical outlets, outlets for time signals, and electrical heating devices. Pipes from an artificial respiration pump are suspended overhead and an electrically driven long paper kymograph is placed at the head of each table.

Situated between the two teaching laboratories is the store room with windows opening directly into each laboratory. Glass blowing apparatus is being installed in a small room that adjoins the store room.

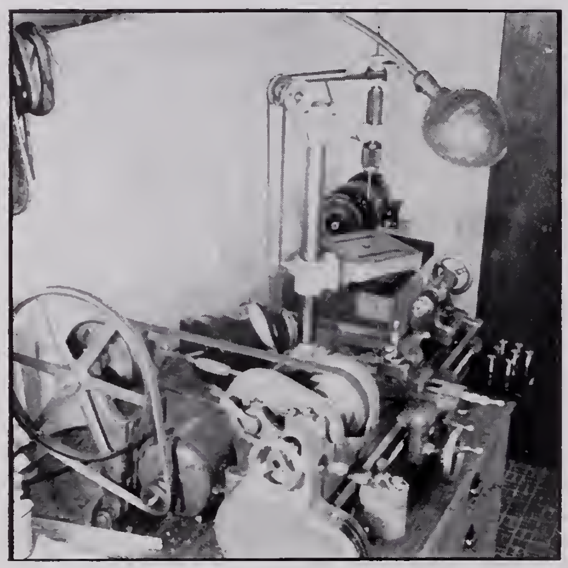
In addition to the teaching equipment mentioned above the department has a McKesson Metablor No. 175 which the students learn to use in making basal metabolic determinations upon themselves and upon patients in the hospital. There are also available to the department for teaching purposes the unusually fine fluoroscopic facilities of the hospital as well as the electrocardiographic equipment in the Department of Pharmacology.

The departmental machine shop is equipped with a new back-geared screw-cutting lathe and necessary attachments, a direct motor-driven drill press, a direct motor-driven grinder, and a set of hand tools. Plans are being made to equip a small wood working shop in the near future. A research laboratory is conveniently situated with reference to the shop and supply room.

Near the teaching laboratories is the departmental lecture room. It is a well lighted room, equipped with sliding blackboards, and

MAMMALIAN LABORATORY—PHYSIOLOGY

supplied with a Delineascope and a Trans-Lux Opaque Projector. Additional space in the attic has been assigned to the department which will be used in constructing a dark room for optical experiments and a relatively sound proof room for experiments in hearing and other special sense functions.



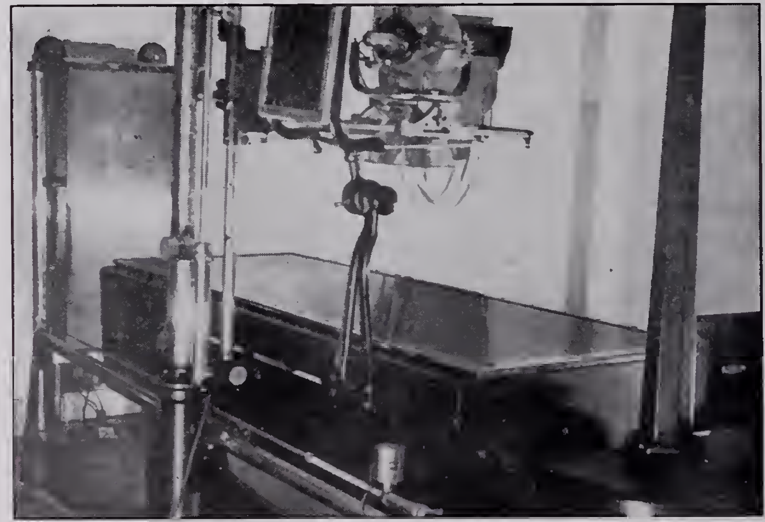
MACHINE SHOP—PHYSIOLOGY

OUT-PATIENT CLINIC

The Out-Patient Clinic Department is open Friday morning from eight to twelve. Ambulatory patients attend the Clinic and are presented by one of the faculty members to the students. The student is taught how to to take a case history and do a complete physical examination in the Clinic. The student also does routine laboratory work on patients assigned to him. For this work three rooms on the ground floor of the Medical School Building are utilized. Each room is equipped with an examination table, sterilizer, instrument cabinet, instruments, and other equipment necessary for making a physical examination as well as splints, bandages, suture material, and other apparatus to carry out all of the ordinary office treatments. The x-ray department located on the top floor of the Medical School Building is utilized for teaching purposes in connection with the clinic patients. The x-ray department is modern and is designed for all routine radiographic, fluoroscopic and superficial therapeutic procedures.

Cardiac patients have the facilities of the electrocardiograph studies through co-operation with the department of pharmacology. Other special laboratory diagnostic procedures as basal metabolic tests, tissue sections, bacteriological and chemical studies are available through co-operation with the departments concerned.

In addition to the work in the Out-Patient Clinic the students also get clinical teaching in the local hospitals. Medical and surgical clinics are held each week for students in each of the local hospitals.



X-RAY AND FLUOROSCOPIC EQUIPMENT

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor-in-Chief
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Post-Graduate Medical Assembly

LILA SINCLAIR, Blue Mountain College, Artist
DAVID E. GUYTON, Blue Mountain College, Poet

Mid-South Post-Graduate Medical Assembly
EDITORS:
E. M. Holder, M.D. C. R. Crutchfield, M.D.
C. M. Speck, M.D. H. King Wade, M.D.
F. M. Acree, M.D. Dewell Gann, Jr., M.D.

Mississippi State Medical Association
W. L. Little ,M.D. .... President
Joe E. Green, M.D. .... President-Elect
T. M. Dye .... Secretary

EDITORS:
Leon S. Lippincott, M.D. D. W. Jones, M.D.
G. S. Bryan, M.D.

COUNCILORS:
J. W. Lucas, M.D. Willie H. Watson, M.D.
L. L. Minor, M.D. H. Lowry Rush, M.D.
R. B. Caldwell, M.D. J. Gould Gardner , M.D.
Thomas J. Brown, M. D. W. H. Frizell, M.D.
D. J. Williams, M.D.

Published monthly at Booneville, Mississippi

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act of March 3, 1870.

We are delighted to dedicate this issue of *The Mississippi Doctor* to the School of Medicine of the University of Mississippi. This school is now on the most secure footing it has ever been on since it was founded 35 years ago. No school in the country is better prepared to give the first two years in medicine than the one at Ole Miss at this time. It has a capacity for fifty students and it receives none except from Mississippi. A large per cent of these native sons return to do outstanding work in our state. Some claim this school is expensive, may be it is, but it has many advantages. The urgent need of the day, medically speaking, is the decentralization of the profession. The best men available are needed in the small town and the rural communities. It is easier to succeed in the city where repetition is not so imperative, but in the small town a man must have native ability, a broad education, a professional mind, a medical soul and a missionary heart. The Ole Miss Medical School inspires by its personal touch and it discovers and develops hidden talents. It gives the student thorough technical training, broadens his educational base, builds into him professional integrity, and admonishes him to follow the road of unselfish and efficient service to his goal of success. The medical student at Ole Miss is benefited by his close touch with the other departments and they in turn learn to respect the medical profession. The student at the University of Mississippi is not hampered by distracting influences. Here "this one thing" he is permitted to do, study medicine. It is well to keep the foundation of a medical school while we have it. We should offer our young men a standard internship of two years.

We wish to congratulate Dr. B. S. Guyton on his fine work for the school and express our admiration for the enthusiastic interest of Dr. P. W. Rowland for the library, and assure the entire faculty of our respect for and appreciation of their personal attention to the student and their scholarly devotion to the school.

Jackson and the Central Medical Association have made elaborate preparations for the state meeting on April 19, next Tuesday. Our fine president, Dr. W. L. Little, has urged the importance of membership and attendance upon our local and state societies during his entire tenure of office. Every practicing physician owes some time to organized medicine for his own edification, for the aid he might be to his comrades in the profession, and in order that he may render better service to his clientele. Our medical problems are increasing in number and in gravity, and the state meeting is an appropriate place to discuss them frankly and sincerely. We should attend our state meeting regardless of where it meets or who is president. Meridian gave us a glorious reception last year. We should have a record-breaking attendance this year because of the persistent campaign for membership on the part of our president and because Jackson is centrally located and is such a delightful convention city. The Central Medical Society is leaving no one thing undone for our pleasure and comfort. This society is a lavish entertainer, and the city of Jackson is always thoughtful of and generous to their guests. As a response to gratitude for the benefits we have received from the state association, as a duty to organized medicine, in the interest of new medical information for personal benefit to ourselves and our clientele, and for the pleasure and joy and benefit of delightful association, let us meet in Jackson next Tuesday, April the 19th.

The Northeast Mississippi Thirteen-County Medical Society held its March meeting in Pontotoc. The scientific program was unusually good and the generous entertainment furnished by the doctors of the county was greatly enjoyed. The Federated clubs of Pontotoc are to be cordially congratulated on the construction of such a fine community house. In it they served a bounteous banquet and furnished us home talent entertainment that reflected much credit on this splendid city. Dr. R. J. Brown, of Iuka, presided over the scientific meeting in good style. The next meeting will be held in Iuka, the home of the president.

Believe it or not. A neighbor drove in for a doctor for a family six miles from Booneville, and less than a mile from the noted highway forty-five, the shortest distance from the headquarters of the American Medical Association to the beautiful and balmy Gulf of Mexico. The doctor responded to the call and found a family of eight living in one room with a small leaky lean-to. The six children were all sick, three to the bed. The whooping cough came first to four of them, then the measles and now three of them were very seriously ill with pneumonia, including the 13-months-old baby. The mother was expecting to be confined any hour. The father was a World War veteran, but now on the WPA at twenty-one per month. The children were very anemic. On inquiry as to their food the father said they had not had any for several days, except coffee and bread. Since the first call ten days ago two of the children have died, the baby yet very ill with pneumonia and, too, a new son has appeared on the scene, the mother having gone to the hospital. After the alarm was sounded the relief forces and the neighbors had made appeals for funds. Food was provided and two nurses, one every other day in relay. They are working for half price, the doctor has made many calls and no charge made. Some of the time the doctor and nurse have had to walk more than a half mile. The nurse is very busy while on duty, trying to make the patients as comfortable, directing the feeding and in spare time trying to reduce the mass army of head lice. Some other disease perhaps passed with the two unfortunate children. Not a fairy story, just a grim truth. While we wonder what to do with food the children starve, they shiver, they live in a shack, they have no literature from which to read. We know not whom to blame, but we ask, "Am I my brother's keeper?" We wonder about the social worker, the church, the school, the relief organizations, and the role of the medical profession in such cases. This is an extreme case, but we have others, plenty of them, that are desperate. Just on the other hill is a family of six taking anti-rabies treatment, the vaccine paid for by the county and the visits free on the part of the doctor while the children are in bed with the measles.

At least one-third of the children in this country are undernourished and they do not have one-third the medical attention they need. Yet in the face of these conditions the government seems very stingy toward the medical profession, and the medical profession with unbending pride likes to say that it lets no one suffer for medical care.—*The Booneville Independent.*

We deeply appreciate the paper of Dr. Kaplan, of New York, on radium treatment of benign uterine bleeding. It pleases us very much to give our readers the benefit of the experience of one so outstanding.

Our state hospital association meets in Jackson on Monday, April 17. Every doctor should be interested in hospitals, since they are so closely related to the doctor and the sick patient.

"Congenital Hypertrophic Pyloric Stenosis" sounds like a big subject and it is, but was well handled by Dr. O. B. Crocker, of Houston. at the last meeting of the Northeast Mississippi Thirteen-County Medical Society.

You will read the paper of Dr. C. H. Crego, Jr., of St. Louis, with much profit on the orthopedic treatment of anterior poliomyelitis. This paper was read before the Mid-South in February.

Hospitals are well fitted to take an active interest in child health. This should begin with prenatal care of the mother, really with the heredity and environment of the grandparents. Hospitals could right now make a survey of their own towns, get names and ages of all the children under ten years of age, make a record of the ones who have been vaccinated against diptheria and smallpox, watch for symptoms of syphilis, note the number who have had contagious diseases, take the weight and see if the child is properly fed, ascertain if the child has any mental food, encourage the parents who are able to have a complete examination, and ask the medical staff to examine those who are not. Hospitals should have personality and should take a personal interest in the people it proposes to serve.

The doctors of this state and many others deeply sympathize with Dr. John Darrington in the loss of his devoted wife. Mrs. Darrington was a woman of culture and refinement and broad learning. The comradeship between Dr. and Mrs. Darrington was an inspiration to any who observed it. With her vivacity, poise and keen interest in his work she was indeed a true helper. Her cordiality and good cheer will be greatly missed at the state meetings. Her heart was very kind and we have never known a person more considerate of others. We offer our deepest sympathy to Dr. Darrington and the entire family.

We regret very much to know that Dr. J. B. Shaw, of Calhoun City, is very ill. He is at the Houston Hospital and reports as we go to press are that he is somewhat improved. We wish for him a speedy recovery. Dr. Shaw has served well on the State Board of Health for many years. He is endowed with a double portion of good common sense. He is an able and a safe practitioner, active in organized medicine and fortified with professional integrity.

We are very fortunate to have articles each month from the pen of Dr. W. A. Evans, a versatile and broadly educated citizen of the world who makes Aberdeen, Miss. his home.

We deeply appreciate our advertisers. They make it possible for us to publish the journal, and they are comrades in the same cause. Each doctor in the state can help us to finance the journal without any cost to himself, just trade with our advertisers everything else being equal. Unfortunately many doctors are not this thoughtful, not this appreciative; but on the other hand many have not missed an opportunity to help us secure advertising. All we are asking is that you help us to help you.

LAWRENCE W. LONG, A.B.,, M.D., F.A.C.S.

Vice-President of Mississippi State Medical Association 1938

Vice-President Mid-South Post-Graduate Medical Assembly 1938

Secretary Central Medical Society 1938

Those of you who were at Meridian remember the invitation given by Lawrence Long to come to Jackson. "We want you to come as guests of the Central Medical Society. I am president of that society and I have appointed myself as a committee of one to see that you have all the entertainment you want." (Transactions of the House of Delegates 1937, page 29). You will note from the program that this has been carried out in prospectus and if there is anything lacking ask for it and the genial secretary of the Central Medical Society will see that you get it.

At present the three great killers of the human race are cancer, heart disease and pneumonia. Of cancer, much, very much has been said and written but little has been done.

Until more is known about its cause and true nature, in my opinion, but little can ever be done to limit its incidence or reduce its fatality. Possibly the outlook is better with regard to heart-disease. Prevention would seem to be possible in a large measure since we can figure pretty accurately as to the causes that lead up to this condition and more can be done to alleviate, if not to cure, this condition once it is recognized. But what of pneumonia? It appears to this writer that we are inexcusable for the fearful death rate from this disease. Because of the fact that this disease is so common and so widespread we fail to take the matter with sufficient seriousness. I feel that all too many of us fail to diagnose our cases correctly. We seem to have fallen into the habit of calling nearly all inflammatory lung conditions pneumonias. Consequently with or without treatment many, if not most, such cases will recover. Hence we fool ourselves into the belief that our treatment is efficacious and our death-rate low. While the truth is the death-rate in pneumonia is always high, very high. If we should diagnose our cases correctly we should soon discover that our pet plan of treatment is wholly worthless. In fact this writer is confident that until recently there has been no real treatment for pneumonia, further than to keep the patient as comfortable as possible by proper nursing care and supportive measures. Drugs are of no avail except to procure rest. Since we know that pneumonia is due to specific infecting organisms, we should realize that the battle against these organisms must be made by the biochemical body processes. Death when it comes is due to toxemia and the toxins must be neutralized by antitoxins. These antitoxins must be produced in the victim's body or introduced parenterally. The pneumococcus is recognized as the causative agent. This organism is easily recognized under the microscope. And no case is properly diagnosed except in this manner, although the symptoms and physical findings are, in most cases, almost pathognomonic. But even though the symptoms and physical findings may suggest pneumonia and the microscope may reveal the pneumococcus, the diagnosis is not complete until the organism has been typed. This procedure is easy and simple. Any qualified physician can do this or can soon acquire the technique. But I feel that there is not a county in the state where some one may not be found who is able and willing to do the necessary typing in a very brief time. When this has been done and it is found that the type is either one or two, a specific serum is available and should be administered at once, just as we all do in diphtheria cases. But as in diphtheria this treatment should be begun promptly. It is probably useless if not used within seventy-two hours; because the patient by this time may be hopelessly toxic or he may be developing his own antibodies in sufficient quantity to win his own fight. These facts were made known in 1910 by Neufeld and in 1913 by Dochez. But running true to form doctors refused to accept a true scientific teaching and continued to run after fallacious doctrines and practices. Why is this so often true? And why are we so slow to adopt proven methods when our older methods are so plainly futile? It is not my purpose to go into the details of this matter at this writing, but simply to sound a call and make a plea for adoption of the **only** known method of successful treatment of pneumonia. Of course it must be understood that only types one and two may, at present, be successfully treated with the serum. But it must, also, be remembered that about sixty per cent of all lobar pneumonias are due to these two types. It is important to remember that the death rate from type one is 27% and that from type two it is 41% when untreated with serum but it is reduced to 11% and about 22% respectively when treated with specific type serum.

The only valid argument against general adoption of this plan would seem to be the expense. But this is foolishness when properly considered. It is not hard to raise sufficient money to have an appendectomy done, and yet pneumonia is **many** times more dangerous and fatal than appendicitis. Again if the serum should be generally used its cost would drop to a low figure, as in case of diphtheria antitoxin. But why not let us demand free serum to the indigent, since it is in this class that most pneumonias develop? In New York State and City as well as in Massachusetts, the serum is furnished free to rich and poor alike.

Doctors of Mississippi, open your eyes—wake up—get on your toes! Let us keep abreast in this crusade to end this "slaughter of the innocent." If they are innocent, we are their keepers—they look to us for protection and have a right to expect us to give them the best there is in medicine.

G. S. B.

Notes and Observations On Health Subjects

Made In South Africa In 1937

By W. A. Evans, M.D.

MEDICAL ECONOMICS

The four provinces that make up this union have their own parliament which makes their own laws and their own federal state and local administrative machinery. Their government duplicates that of Canada. When South African physicians are asked whether they have state medicine they reply, "No." As is noted elsewhere there is pressure for it from labor unions but the pressure has not been great enough to cause the physicians to take any action. Since so large a proportion of the medical profession was educated in Great Britain and since they read British medical journals, attend British medical meetings, visit, and are so much under British influence, the position of the union physicians on state medicine, when they begin to discuss it seriously, will be very interesting.

Although there is nothing in the practice of medicine which goes by the name of state medicine, most of the medical service given is essentially state medicine although it goes by other names.

Definition: If we accept the definition of state medicine of the Monroe County (Miss.) Medical Society as, "all medical service rendered except that which is paid for by the sick individual, or the head of his family, at the uniform rate for one unit of service fixed by the medical society fee table" then there is very little practice of medicine in South Africa that is not state medicine. There are many definitions of state medicine and whichever one we adopt as our yard stick we find that a majority of the people in the union of South Africa get their medical service under state medicine.

Industrial Medicine Mining: Perhaps the greatest industry in Africa is mining. All the people connected with the larger mines get their medical service under that division of state medicine called industrial medicine. Under this form the employing companies take the place of the state. The companies are required by law to supply medical and burial services as a part of wages. The employer hires the physicians, nurses and pharmacists, maintains the hospitals, dispensaries, research institutions, and carries on the sanitary services. Where the policy of the employer is to have the families of the employees live with the employee at the mine, they also are given medical service by the employer.

Farm Labor: Under the law the farmer pays his labor with money, food, house sites, wood, water and medical service. Not much service is given by the employer. Some farmers give a small amount of hospital service in addition to the regular medical service, but this is regarded as a gift and not as a part of the contract.

Preventive Medicine: In Africa just as in the United States preventive medicine is almost wholly in the hands of the state, curative medicine theoretically being retained by the medical profession as their responsibility. But the line of demarcation between preventive and curative medicine is not easily maintained and in practice it is variously overstepped from both sides. The state cares for all contagious disease cases that are hospitalized, and that are indigent, medical care is given by the state. Some part of the diagnostic service in contagion is given by the state. The state supplies some of the medicines used in the cure of disease such as diphtheria antitoxin, quinine, and salvarsan. However, this practice varies greatly in different parts of South Africa and somewhat in different parts of the union of South Africa.

Mental Diseases: The curative and custodial care of mental diseases is almost altogether in the hands of the state and comes under state medicine.

Military Forces and Police: Curative care is entirely in the hands of the state. Under certain circumstances the care is extended to members of the families of soldiers and police. They have national police instead of municipal police and in consequence the governmental agencies giving medical care are federal.

School Medical Service: This, whether it be examination for contagion or other service, is under the government.

Medical Service Paid for by Rent and Hut Tax: Whenever a municipality is created the government retains title to the land. They sell some and set aside other areas for public uses, such as hospital grounds, library grounds, parks, play grounds and locations for the colored and for natives. The housing in these latter locations is owned by the government. The government rents the houses and the rent paid includes payment for medical service. This service is rendered by government doctors and nurses, dispensaries and hospitals and is therefore state medicine.

Bush Service: The natives who remain "in the bush" pay a hut tax. For this hut they get a certain amount of medical service. This is state medicine.

Mission Medicine: Wherever medical service is outstandingly inadequate one of the missionary societies is apt to establish a mission, giving medical service. There are hundreds of such medical missions. Many of them are equipped with hospitals, dispensaries, branch dispensaries, doctors, nurses, and training schools. Most of them assume responsibility for the medical needs of a large district around them. Their doctors and nurses are paid out of mission funds. Most of them receive grants from the state to pay, in part, the medical service they render. These grants usually consist of money though they may include quinine, antitoxin, salvarsan and other drugs and supplies.

Government Industrial Medicine: Since the railroads, post offices, telegraph and telephone services, and many other services, which are privately operated in the United States, are owned and operated by the government in South Africa, the curative medical service rendered their large groups of employees comes, in varying degree, under what is known as state medicine.

Public and University Hospitals and Dispensaries: This considerable group of institutions maintained in part for the training of physicians and nurses, furnished curative medical service to a great many people. The physicians in such service are paid salaries by the state.

Coroners, State Government Physicians and Health Officers: The machinery of government medical service is much more complicated and elaborate than in the United States. Both private physicians and the coroners physicians are allowed by law to certify deaths. The coroner or examiner is a medical man. In the centers of population such as Johannesburg, Durban and Cape Town the coroner issues a larger part of the total death certificates than is customary in the United States. The government physician for a district takes care of the medical needs of the indigent not cared for in hospitals. He generally conducts a dispensary. In the Orange Free State (around Bloomfentein, the local health officer is in charge of medical relief of the poor inside the city limits while in the district outside, the district physician is in charge of medical service and, to a degree, of prevention. This arrangement probably prevails elsewhere in the union.

Private Physician: All those people not coming under the above groupings are cared for under the private practice of medicine by general practitioners, consultants and specialists. If there are agencies for giving medical aid, such as hospital societies, friendly societies, benefit societies, co-operative societies, etc., such as prevail so extensively in other parts of the world. I did not hear of them or encounter them except in the one instance noted elsewhere under "Medical Economics." The society there referred to was organized in Elizabethville Congo Belge.

Should the people of the union of South Africa decide to adopt state medicine the only new groups to which it would apply are those now served by general practitioners, consultants and specialists. If they follow British practice state medicine will not include the services of consultants and specialists.

South African Journal of Medical Sciences, July 1937, article on distribution of medical practitioners in the union of South Africa by Phyllis Gillman of Johannesburg:

Number of practitioners in the union—1981.

Total population—9,588,655.

Total white population—2,003,583.

1 M.D. for each 1011.4 Europeans (whites).

1 M.D. for each 3829 negroes and colored.

1 M.D. for each 4840.4 total population.

These doctors, practically all, live among and cater to whites. The only part of the population that can receive adequate, prompt and convenient medical care, are the whites located within easy reach of the large towns. These compose about one-fifth of the population. The geographical distribution of the physicians bears no relation to the medical needs of more than one-half of the whites (Europeans).

The facilities for medical aid of any consequence are utterly inadequate in some large towns. The negroes (natives) and colored have almost no medical service in their native surroundings. All they get is from some district government medical men and from medical missionaries. Native medicine men do not practice medicine. They are religionists practicing some conjure and some voodoo.

Number of M.D.'s in Cape provinces—838.
in Transvaal—689.
in Natal—265.
in Orange Free State—189.

The article is illustrated by shaded and dotted maps and by charts and diagrams. The figures for the different states are:

In Transvaal 1. No. M.D.'s—689.
2. white population—820,620
3. population per M.D.—1191.
4. area square miles—110,450.

Nearly all of these are located in Johannesberg and the mining towns suburban to Joberg and in Pretoria number 506.

Province of Cape Town:

1. number M.D.'s—838.
2. Population—791,394.
3. White population per M.D.—719.
4. Number square miles—276,966.

Nearly all of the M.D.'s are in Cape Town except 335 in Port Elizabeth and New London.

Province of Natal:

1. Number M.D.'s—265.
2. White Population—190,551.
3. Number white population per M.D.—719.
4. Area in square miles—35,284.

7/10 of the M.D.'s in Natal are in Durban and Pietermaritxburg.

Orange Free State Province:

1. Number M.D.'s—189.
2. White population—200,947.
3. Whites to each M.D.—10,632.
4. Area in square miles—472,347.

Totals:

1. Number M.D.'s—1981.
2. White population—2fi003,583.
3. Number whites per M.D.—1011.4.
4. Number square miles—472,347.

This article shows the necessity of relocating the M.D.'s with respect to needs or some form of state medicine. The whites and the natives working for the large mines and other large industrial enterprises are far better equipped with hospitals, dispensaries, general practitioners and preventive medicine, officials than are any other sections of the public.

Statement by Dr. Ferguson, health officer—Port Elizabeth: "Our native (negro) has little chance economically and politically and none socially, but biologically he has a better chance than our whites or our coored." In this statement Dr. Ferguson was speaking of the negroes who work for the large industries and those who are given medical service or whose life is closely supervised by government memoranda of a visit to municipal **abottairs,** dispensaries, and native quarters in Port Elizabeth with Dr. Ferguson.

Natives live in native "locations" and are never allowed to live elsewhere in town. Here the negroe houses were cheap frame built in long, even rows very like an American mill town of the poorer type. Dr. Ferguson was much interested in a housing program for which he expected to get from the state a large sum of money soon. (Nearly everywhere I went in South Africa the local governments were expecting to get some money to carry out housing programs).

These houses have no facilities for heating; practically no furniture; generally a lock on the door. There is no individual yard. Saw many chickens and some other domestic fowls, a few goats, no hogs. Have common water faucets, baths, toilets and laundries. The houses are better than those lived in by negroes in the South. They pay rent to the municipality for these houses. Pay 8 shillings ($2.00) per month rent, but one shilling of this (25 cents) goes to pay for medical, nursing and hospital service. This amount raises enough to fully pay for the service given.

There are district nurses. Each nurse calls on all sick persons of whom she hears as being sick in her district. They make the first contact with illness. If the sickness is important enough to warrant it, the sick person is sent to one of the clinics or to a hospital or the district doctor is called.

A nearby clinic in a simple frame building takes care of ambulatory cases. Have daily clinic hours. Have doctors, nurses and clerks in this clinic. These clinics are well equipped. Some are special clinics such as tuberculosis clinics, D. clinics, etc. The doctor may send a case home to bed, or to a hospital. He pays visits at homes to patients that he sends to bed or to cases the nurses say need this service.

Poster seen on wals at Cape Town:

CALLING A MASS MEETING AT CITY HALL
To agitate for higher wages, better hygienic
conditions in working places, annual holi-
days at employers expense, unemploy-
ment insurance, healts insurance
for all, etc.

Congo Belge: This morning a meeting was held in the ball room of my hotel. I was told it was a medical meeting but it proved to be a meeting to organize a mutual sickness benefit society, the object of the society being to give members and their families medical service at reduced rates. There is no government medical service for all the people (state medicine in Congo Belge) or elsewhere in Africa, so far as I know. Members of this society pay a monthly due. The physician is employed by the year. The amount of his pay depends on the number of members of the society. The member and his family get all the ordinary routine home and dispensary medical service they need. They get hospital service at a certain percentage of the scheduled rate. The members get lower prices on drugs and especially on quinine. They get dental service at a reduced price.

COMMITTEE ON AGREEMENT AND ENTERTAINMENT FOR THE MISSISSIPPI STATE MEDICAL ASSOCIATION

General Chairman: Harvey F. Garrison.

Vice Chairman: Percy Wall, Noel Womack, John McIntosh.

Secretary: B. Ware.

Treasurer: T. Blake.

Program and Clinic: Harvey F. Garrison, Noel Womack, Percy Wall, John McIntosh.

Finance: D. W. Jones, Lawrence W. Long, Willis Walley, Robert McLean, Temple Ainsworth.

Entertainment: Lawrence W. Long, Harley R. Shands; co-chairmen, Harvey F. Garrison, T. Blake.

Hotel: Robin Harris.

Publicity: Lauch Hughes.

Scientific Exhibits: Willis Walley, Robert McLean, Temple Ainsworth, co-chairman.

Technical Exhibits: D. W. Jones.

Lantern and Screens: T. E. Wilson.

Fishing: W. F. Kindall and R. W. Hall.

Rifle: George Adkins.

Trapshooting: Joe F. Armstrong.

Ladies Entertainment: President of Auxiliary.

Round Table Luncheons: George Owens.

Transportation: L. B. Moseley.

President of Society, general chairmen, and Secretary (Ware).

Ex-officio members all committees.

COMMERCIAL EXHIBITORS

The following is a list of the exhibitors for the Mississippi state meeting. We appreciate the co-operation of these companies. They are our friends and our co-workers. They help us to finance the expense of the meeting and they bring us much information that we need. The exhibitors are a big factor in making a meeting in many ways. They help to boost the meeting and call the attention of the doctors to it. We should work hand in hand with them. Give the exhibitors a cordial hand. This journal appreciates every exhibitor, and especially those who carry space with us and help to make this medical journal possible.

J. A. Majors (books), New Orleans; McKesson and Robbins (surgicals), Birmingham; Snells Co. (artificial limbs, etc), Memphis; American Optic Company (opticals), Jackson; Estes Co. (surgical), Atlanta; Winthrop Co., (pharmaceuticals), New York; General Electric (electricals), Memphis; Southern Surgical Supply Co. (surgicals), New Orleans; Dick X-Ray Co. (x-rays), Memphis; Surgical Equipment Co. (surgicals), New Orleans; E. J. Hart Cd. (medicines), New Orleans; Phillips Co. (legs, braces, etc.), Jackson; Bilhuber-Knoll Co. (pharmaceuticals), Jersey City; Lederle & Co., (biologicals), New York; Squibb & Co. (biologicals), New York; Mercere (surgicals), Memphis; American Surgical Co. (surgicals), Jackson; Harrower Laboratories (biologicals), Glendale, Cal.; Mead-Johnson Co., (baby foods), Evansville, Ind.; Richards Mfg. Co. (splints, etc.), Memphis; Jones Metabolism Co., Dallas.

COMING MEDICAL MEETINGS

Arkansas State Medical.—April 18-20, Texarkana, Ark.

Mississippi State Medical.—April 19-21, Jackson, Miss.

Louisiana State Medical.—April 25-27, New Orleans, La.

Southern Railway Surgeons.—May 24, 25 and 26, New Orleans, La.

American Medical Association.—June 13-17, San Francisco, Cal.

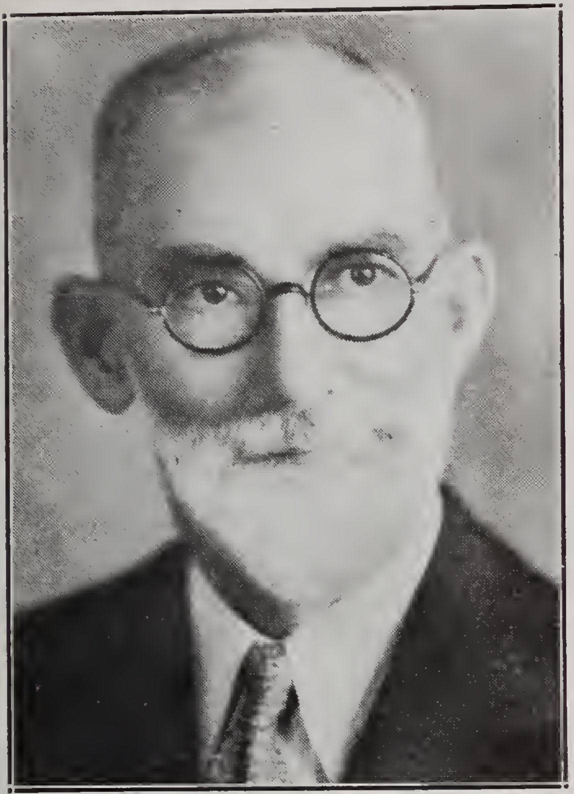
Louisiana State Medical.—May 2-4, New Orleans, La.

Georgia State Medical.—April 26-29, Augusta, Forest Hill Hotel.

Texas State Medical.—May 9-12, Galveston.

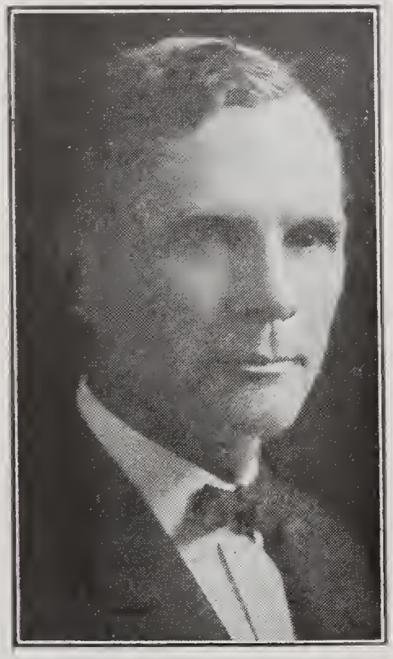
Alabama State Medical—April, 19-21, Mobile.

American Neisserian Medical.—May 16 and 17, Public Health Auditorium, Washington, D. C.



Dr. W. L. Little, of Wesson, President of the Mississippi State Medical Association. He has held high the banner of the general practitioner who is yet the corner stone of the medical profession.

Mrs. W. L. Little, the faithful helper who has been true to every trust with her kind heart, her ready hand and her intuitive wisdom.



Dr. T. M. Dye, the efficient secretary of the state association and the popular and able mayor of Clarksdale.

TO THE MEMBERS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION AND THE MEMBERS OF THE WOMEN'S MEDICAL AUXILIARY

We are taking this method, through the kindness of *The Mississippi Doctor,* to extend each and everyone of you a most cordial invitation to "Open House," at our residence, 748 Gillespie Place, honoring the officers of the Mississippi State Medical Association, and the officers of the Woman's Medical Auxiliary, from 5-7 p. m., April 19th, 1938. The officers of both the Mississippi State The officers of both will be there to welcome you. Permit me to urge you to accept this invitation, in order that we may show these officers that we are solidly behind them in the discharge of their respective duties.

We are expecting each and everyone of you to attend the "Open House." We shall be disappointed if you do not come.

Cordially your friends,

Dr. and Mrs. Harvey F. Garrison

748 Gillespie Place,
Jackson, Mississippi.

Dr. Joe Green, President-elect of the Mississippi State Medical Association, a fine combination of energy, wit and wisdom.

Dr. P. W. Rowland, of Oxford, who has been with the School of Medicine at the University since it was founded. He was the second in the South to begin teaching experimental pharmacology. He is now devoting much time to establishing a library for the medical school.

Scholarly, courtly, cultured.

Dr. B. S. Guyton, Dean of the School of Medicine of the University of Mississippi. A man of vision and executive ability.

NEWS FROM THE MEDICAL SCHOOL OF MISSISSIPPI

Dean B. S. Guyton announces the transfer of sophomore medical students, to date, as follows: W. E. Crocker, T. M. Gore, F. C. Massengill, D. M. Pennebaker and A. N. Streeter to the University of Tennessee Medical School; H. L. Flowers, R. B. Flowers, V. S. Gully, R. L. Holley, G. T. Pearson, T. L. Royce and J. H. Swartzfager to Tulane University Medical School; W. C. Hays to University of Louisville Medical School.

Dr. G. H. Woollett, Chairman of the Committee on Admissions, reports the admission of 16 students to the 1938-39 freshman class on March 23 . Since a period of approximately six months still remains before the actual enrollment of the class, there seems to be no doubt that the medical school will begin the year with its full quota of 25 carefully selected freshman students. All students so far admitted are residents of Mississippi; they have been admitted from a large number of institutions, including the University of Mississippi, Mississippi State College, Millsaps College, Mississippi College, Arkansas Polytechnic, George Washington University and the University of Tennessee.

A medical aptitude test will be conducted April 9th at 3 p. m. in room 107, Chemistry Building, University. Anyone interested in taking the test should make arrangements with Dr. G. H. Woollett, University, or with Dr. F. A. Moss, Columbian Medical Building, Washington, D. C.

A joint meeting of the Bramlett and Oxford Hospital staffs was held Friday, February 25, in the Graduate Building Auditorium. Dr. Milton Adams and Dr. W. H. Anderson presented very interesting talks, respectively, on "Plastic Surgery" and "Some of the Present Day Problems in Medicine." A large number, including faculty and medical students, attended the meeting.

A recent communication from Dr. Edward Holmes, of Winona, to Dean Guyton, states that Dr. Holmes is donating a ten-year collection of medical journals to the Rowland Medical Library at the University. The Medical School wishes to express its appreciation for this gift.

27th SEMI-ANNUAL MEETING OF THE DELTA MEDICAL SOCIETY

Rosedale, Miss., April 13, 1938

Business Session: Invocation, Rev. L. A. Street; Welcome Address, Mayor J. W. Wilson; Announcements; Order of Business.

Scientific Session. — Sunflower: "Obstetrics in the Country."—G. J. Nancill, M.D., Indianola.

Leflore: "Allergy in Children."—S. L. Brister, Jr., M.D., Greenwood.

Humphreys: "Arterio-Venous Aneurysm."—W. H. Brandon, M.D., Guest from Clarksdale. and Six Counties Medical Society.

Washington: "Coronary Thrombosis: The General Practitioner's Problem."—John Rrcher, M.D., Greenville.

Bolivar: "Agranulocytosis."—O. E. Ringold, M.D., Cleveland.

"The Treatment of Pneumococcic Pneumonia."—J. H. Musser, M.D., New Orleans, La. Guest Essayist.

Social Session: Buffet Supper followed by dance at Country Club.

We deeply regret that we were unable to attend this meeting of the Delta Medical Society. It was our great loss. Ed.—

TO THE MEMBERS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

As General Chairman of the Committee on Arrangements and Entertainment for the Mississippi State Medical Association, it gives me a great deal of pleasure to say that all of the committees have put the finishing touches to all their arrangements for the entertainment for the members of the Mississippi State Medical Association.

There are ample hotel facilities for all whom attend the meeting. It gives us a great deal of pleasure to extend a most cordial invitation to every member of the Mississippi State Medical Association to attend this meeting. Every minute of your stay here will be well worth the time spent.

It was my privilege and pleasure to meet with the program committee of the association a few days ago, and I am glad to say that the program as completed, is one of the very best that this state has ever seen.

Harvey F. Garrison, Chairman, Committee on Arrangements and Entertainment.

OXFORD HOSPITAL MEETING

The regular monthly staff meeting of the Oxford Hospital, Oxford, Miss., was held at the Guyton Clinic on Tuesday, March 29, 1938. Dr. J. C. Culley, president of the staff, presided. The following cases were presented:

(1) Tetany, "Spasmophelia"—Dr. A. H. Little. Discussed by Drs. B. S. Guyton and J. C.

(2) Glaucoma.—Dr. Earl W. Green. Discussed by Drs. B. S Guyton and J. C. Culley. Culley.

(3) The Fallacy of the X-Ray in Making a Diagnosis.—Dr. J. C. Culley.

LIST OF OFFICERS, DELTA STATE MEDICAL SOCIETY

President, C. W. Patterson, Rosedale; President-Elect, G. Y. Gillespie, Greenwood.

Vice-Presidents: Bolivar, W. W. Hall, Shelby; Humphreys, J. W. Barkley, Belzoni; Leflore, J. C. Adams, Greenwood; Sunflower, U. S. Wasson, Moorhead; Washington, R. C. Finlay, Glen Allen.

Secretary and Treasurer, F. M. Acree, Greenville.

Delegates: Bolivar, C. W. Patterson, Rosedale; Humphreys, J. R. Jackson, Belzoni; Leflore, G. Y. Gillespie Greenwood; Sunflower, W. H. Weeks, Doddsville; Washington, J. L. Sanders, Leland.

H. F. Garrison, Sr.
Chm. Gen. Arrangements

Committee on arrangements of the Central Medical Society. These men have not overlooked one thing that might add to our pleasure and to our comfort. Generously they have made ready for us to come to town. We should not have the heart to disappoint them.

* * *

J. T. Ramer
Pres. Central So.

Mrs. T. E. Wilson
Pres. Auxiliary

L. W. Long
Entertainment

D. W. Jones
Commercial Ex.

J. Percy Wall
Vice-Chm

John McIntosh
Vice-Chm

Noel C. Womack
Vice-Chm

H. R. Shands
Entertainment

Willys Walley
Scientific Exhibits

W. L. Hughes
Chm. Publicity

Geo. Owen
R. Table Lunch.

T. H. Blake
Treas.

N. F. Kendall
Chm. Fishing Com.

Robin Harris
Chm. Hotels

R. B. McLean
Scientific Exhibits

Geo. E. Adkins
Rifle Matches

M. Brister Ware
Sec'y Committee

J. W. Barkesdale
Golf

T. E. Wilson
Lanterns, etc.

J. W. Armstrong
Skeet Shoot

MISSISSIPPI STATE MEDICAL ASSOCIATION
and
COMPONENT SOCIETIES

Some Acute Abdominal Conditions in Childhood*

JOSEPH BRENNEMANN, M.D.
Chicago, Illinois

I had chosen as my subject "The Acute Abdomen in the Child" but on account of the limitation of time will restrict myself to a few of the conditions that are of major interest. The subject has been one of very great interest to me ever since I, a long time ago, started in the practice of pediatrics. A pediatrician as you know is just a general practitioner—I will take out the word "just" and put it a "practitioner"—except that he has a way of restricting his activities to the first 14 or 15 or 16 years of life. What I am going to say is not anything especially new nor what someone might call "scientific" but is based on something more than thirty years of rather close clinical application under rather favorable circumstances. It seemed to me that I could perhaps tell you a few "tricks of the trade" that I have acquired during that time by keeping my nose close to the clinical grindstone.

Abdominal conditions in children are different from conditions practically anywhere else. It does not make much difference whether you make a diagnosis of pneumonia or of a brain tumor or of an empyema today or tomorrow or next day; but the abdominal condition needs to be evaluated quickly if one does not want to have a catastrophe. For that reason, I shall devote most of the time of what I have to say on the matter of diagnosis and bring in only the treatment as it naturally results from the diagnosis. I shall restrict myself to speaking of three main acute abdominal conditions that while they are not perhaps the most frequent nevertheless present problems in diagnosis and the possibility of a fatality if the diagnosis is not made promptly. The three main subjects that I shall discuss are Intestinal Obstruction, Hemorrhage from the Bowel, and Appendicitis and, together with the latter, its frequent accompaniment, Peritonitis.

About 70 per cent of cases of intestinal obstruction occur in the first year of life. It is one of the melodramatic things in medicine. Although the diagnosis is usually relatively easy if one has the condition in mind it is nevertheless very commonly missed for rather good reasons that are worth considering. It is naturally a rather infrequent condition in the private practice of any one man. We, on the other hand, encounter it very frequently in a large children's hospital and therefore ought to be more familiar with its manifestations. The children we see come from all sorts of homes and have been seen by perhaps I might say all sorts of doctors, and we have therefore an opportunity of seeing how often the diagnosis is missed and also the reason for the failure of diagnosis. I think that most of us, I know I had for a long time, have rather a wrong impression of the symptomatology of intussusception as we got it from the books. There is a general impression that the child that has an intussusception cries and screams with pain, vomits incessantly, and goes into shock. As a matter of fact, these things occur only in the early stages but the whole picture changes after the first few hours. There is one symptom that I always like to emphasize and that is that the mother never tells you, "My child began to get sick yesterday" or "day before yesterday" or "night before last." She will tell you, "Last night at 6:30 he suddenly began to cry and it was simply terrible" or she will say, "It was just as my husband was getting home that he began to cry, scream with pain, and then to vomit." In other words, the thing begins suddenly as few other things do and that is a very important symptom. The onset is sudden, usually noted by the clock, not insidious. The onset, furthermore, is always stormy. The child that has been perfectly comfortable is perhaps waked out of his sleep and screams with pain. If the mother holds the child in her lap he climbs up on her and claws at her. Very soon he begins to vomit. After that the pain is of a distinctly intermittent or colicky type as the pain of practically all colic is, whether due to a gall stone, a kidney stone, or any other sudden obstruction to a hollow viscus with a muscular propulsive mechanism. The pain comes and goes but after the first few hours is no longer very severe. The vomiting that occurs early is apt to stop after a short time. The child has a pain evidently in the "stomach" and he vomits and therefore the mother thinks that he has some intestinal condition and follows the time-honored—or rather dishonored—idea that if a child has an abdominal pain he must have a cathartic. He vomits this and so he is given an enema which brings no relief, and so the enema is repeated two or three times. There is still an all too prevalent idea that nearly anything can be overcome by clearing out the gastro-intestinal tract and that is the best idea to get rid of that I know. But the big thing is that the child that at first had a tremendous amount of pain becomes more quiet and the mother naturally thinks that he is better. There is still an interval before the doctor is called and that in a condition in which every hour counts as far as the ultimate result is concerned. It finally becomes evident that he is still sick and by the time the doctor gets there he usually presents a picture that is very characteristic of the later stages of an intussusception. The child still has some slight intermittent pain but not enough to make him cry. He winces, he turns over on his side, he sighs or moans, he never smiles, but there is not that severe pain which characterizes the first few hours.

---

*Read before the Section on Medicine at the Seventieth Annual Session of the Mississippi State Medical Association, May 11, 1937.

It is unfortunate, further, that the seriousness of a disease is often erroneously measured by the degree of fever; even the doctor may be misled by the fact that the child is relatively quiet, no longer seems in much pain, does not have a diarrhea, and has no fever—or at least very little. The matter is usually brought to a head that there is something more serious by the fact that either spontaneously or with an enema the child passes a bloody stool. That is always an arresting symptom, both to the mother and to the doctor.

I would like to emphasize still more the peculiar appearance of the child after the first few hours that to one with considerable experience with intussusception has actually diagnostic value. I think there are times when one can look at a child's face and decide that he probably has an intussusception. There is a peculiar, apprehensive, resigned, calm sort of look. They look serious but not as if in pain, they never smile, and the only evidence of pain is such as I have already mentioned.

Now, outside of these things that I have enumerated, the diagnosis is based on two things, the finding of a tumor in the abdomen and the occurrence of blood in the stools. The first stool may be perfectly normal, the second will practically invariably contain blood and it is always intimately intermixed with feces and mucus so that it has a sort of thick, currant jelly-like appearance. The blood is never clotted. I emphasize this because of another condition that I shall speak of later. The blood oozes through and mixes with the mucus and this accounts for its peculiar consistency.

I think that every child in whom one suspects an intussusception should have a rectal examination. This may be rewarded with one of those rare findings in which if you put your finger into the rectum it seems to fall into an empty cavity and at the end of the finger you may encounter something that feels exactly like a cervix in a vaginal examination; in other words, the intussusception may have gone as far as the rectum and sometimes it even appears on the outside. More important and more frequent, *as you withdraw your finger there is nearly always a silent spurt of ½ teaspoonful, more or less, of something that looks like a turbid currant jelly.* This is practically pathognomonic of intussusception and occurs with no other disease. Pathognomonic symptoms are relatively rare and when we do find one, as in this case, we should cherish it.

Although the vast majority of these cases is due to an intussusception at the ileocecal region, the tumor by the time we see it has nearly always passed for beyond that point so that it is relatively rarely found on the right side. It has usually traveled at least as far as the transverse colon or is already in the descending colon on the left side. In my experience it is rarely necessary to give a child an anesthetic and the tumor can nearly always be felt if one has the proper technique and the necessary amount of patience.

With the warm hand laid flat on the abdomen one can nearly always make out a soft but distinct sausage-shaped tumor. If the child cries it is of course more difficult to make it out. A bottle may quiet him and make palpation more effective. When the diagnosis has been made operation should be resorted to at the earliest opportunity. I think it is rarely necessary, and we do not do it as a routine, to resort to some method of fixation to prevent a recurrence. If there is doubt as to the diagnosis one can give the child a barium enema and under the fluoroscope see the fluid pass up to a certain point and then stop. If this is done during the early stages one can sometimes reduce the intussusception by making pressure over the abdomen after the fluid is introduced and see it pass on under the fluoroscope.

There are two or three things that perhaps should be mentioned further. I have seen an intussusception with a normal stool containing no blood. There is apparently also such a thing as a chronic intussusception, a very rare condition, and hard to differentiate from a recurrent intussusception. It must be emphasized also that it is not an extremely infrequent thing for an intussusception to reduce itself either spontaneously or because of intentional or unintentional manipulation.

At the far distant end of the intestinal canal there is another condition that I have been very much interested in and that is not extremely rare. Some years ago I reported seven cases of ano-rectal stricture. I have seen about twenty of them since. I mention this merely as evidence of the fact that this condition is not one of the greatest of rarities. If one has the thing in mind, the diagnosis is very simple. If one does not it will almost surely be muffed. I think I can best bring the thing home by citing two or three instances. The first one I saw about 25 years ago. This child was about two weeks old and had screamed with pain almost constantly since birth except that he had that characteristic intermittence which always comes with a colicy pain. As one examined him there was evident a very marked patterning over the abdomen due to a distention of the large bowel. He had had almost no bowel movement, he rarely passed any gas, and when he did it was of such volume and intensity that it could be heard at a great distance. I tried to introduce my little finger into the rectum and found that it was quite impossible to do so. I then passed a catheter and the whole abdomen went down with a hissing sound like that with which one is familiar when the little valve is taken out of an automobile tire, and the child immediately fell into a peaceful and much needed sleep. The next day I got my little finger in a little further and in a few days I could get it in fully; using the graduated dilators of my hand I finally got in the thumb. The child was practically well from the day that I first was able to introduce even my little finger. I saw that child 18 years later and he had never even been constipated in all that time.

One of the most recent cases that I saw was in a doctor's child. He called me up one night and said that his baby was three days old, had vomited everything he had taken, and had not had a bowel movement, that he thought it had a pyloric obstruction. On seeing the child it was perfectly evident that the child did not have a pyloric obstruction because the whole abdomen was distended, in fact distended so much that there were three cracks across the abdomen where the skin had given away because of the distention. With a little difficulty I got my little finger and then my index finger into the rectum. I went back the next day to repeat the process but it was no longer necessary. The baby had only just spilled over a little once during the night, had slept practically all night, and the nurse said that every so often she heard what some Eastern surgeon has said was "the sweetest sound in all the world," the passing of gas under such conditions. That child has never vomited since and a surgeon who at the time was in the offing was denied an operation that had been anticipated. The question naturally arises—what causes such a condition? It is not a tight sphincter because a tight sphincter would be just as tight the next day while this obstruction remains of the calibre to which it has been dilated. In the embryonic development the upper part of the intestine comes down and the lower part comes up to meet it. They are supposed to fuse and naturally do so. If the fusion is not complete as it normally is not at one period there remains a sort of iris diaphragm or a sickle shaped partition that is made up of mucus membrane and fibrous tissue which naturally remains distended if dilated. I have dwelt especially on this condition even though it is relatively rare because of its great importance if it does occur and of the ease with which it can be diagnosed if one is familiar with the condition. I can assure you that the treatment is as effective as it is simple and unique. In the more than 20 cases that I have seen I have never known it to fail. I might add that this condition is not supposed to be the same as Hirschsprung's disease. In both there is a megacolon but in Hirschsprung's disease this is supposed to be idiopathic and not due to a distal obstruction. Inasmuch as I have seen only a very few cases of Hirschsprung's disease in my life and so many of these, it is at least interesting to speculate whether some of Hirschsprung's cases did not have an obstruction. I know of at least one case of ano-rectal stricture in which an operation for Hirschsprung's disease was done and in which the only result was a fecal fistula until the true obstruction was relieved after the correct diagnosis was made.

Appendicitis and Peritonitis: One of the unfortunate things about appendicitis is that in spite of the fact that we know more about it than about almost any other disease the mortality has not diminished to any great extent in the course of the last decade or so. It has even been stated that the mortality is increasing. Why should this be? In the first place the appendix is a very small affair. There is characteristically relatively little fever and the pain is only about that of any small, localized, inflammatory process such as a boil. The mother again, and I advisedly say 'mother' because the father is of relatively little importance in pediatric practice, the mother again who measures the seriousness of an illness by the degree of pain and the fever naturally thinks that the child simply has a stomach ache. Again the old idea crops in that if there is anything wrong in the intestinal tract, or for that matter anywhere else, a cathartic is indicated. I sometimes think we ought on all occasions in season and out of season to proclaim from the housetops and to every mother: "If your baby has a pain in the abdomen don't give him a cathartic." Perhaps it would be better to say "physic." If one cathartic does not work she resorts to another and I can only say that nearly all of the patients with appendicitis that we see at the hospital have had one or more cathartics together with one or more enemas. She naturally awaits the results. In other words, there is a delay and one misses the opportunity of seeing the child in the first 24 hours which is of such tremendous importance in the prognosis. Only after both caster oil and salts have gotten in their bad effects with no relief is the doctor called.

I think there is still one other reason. There was a time when appendicitis was considered a serious disease and the operation one requiring considerable skill and the services of an experienced surgeon. Nowadays most every doctor feels that he can remove an appendix.

The symptomatology of appendicitis in the main consists of moderate pain in the lower part of the abdomen usually on the right side, vomiting, and a low fever. I like to emphasize the fact that there is relatively little pain and relatively little fever. If the fever is high it is usually due to something else of which the appendix is a complication. Tenderness is far more important than pain; in fact, the one important point in the diagnosis of an early appendicitis is tenderness at one point. The pain may start and usually does, as in the adult, at the umbilicus and gradually travels in a short time to the lower right quadrant of the abdomen; however the tenderness is where the maximum point of inflammation is located. Sometimes I wish there had never been any such thing as McBurney's point because we are always looking for the tenderness of an appendicitis at that point whereas it may be high, almost in the flank as in a retrocecal appendicitis. It may be low, almost in the pelvis. It may be on the left side. We had at one time in the hospital two children in whom the tenderness was on the left side and not on the right; one had an appendix on the left side because over any point in which any part of the appendix that lay across the mid line and the tenderness was at the inflamed tip. I would like to stress once more that the one important early sign of appendicitis is tenderness over any point in which any part of the appendix might lie. Rebound tenderness is commonly obtained but I think has no great value in diagnosis. Rigidity of course is far more important. There is always a voluntary, protective rigidity over any inflamed appendix. When the rigidity is involuntary, board-like, it means, of course, a peritoneal involvement. Rigidity is not necessary to a diagnosis of appendicitis and certainly not involuntary rigidity. When an appendix ruptures there is often a rather quiet period after that, much the same as the relief that comes after a boil has burst.

There is a little trick about examining a child's abdomen that is perhaps worth pointing out. The hand, of course, must be warm and is laid on flat. One approaches the probable seat of trouble from the well side and makes gentle palpation toward the affected side. It is not necessary to press hard and it does no good to keep saying, "Does this hurt? Does that hurt?," etc. One naturally asks him where his pain has been and where it is now but instead of asking him whether certain points are tender it is far more revealing to watch the child than to ask him questions. Involuntarily if the point is tender and is pressed upon he will screw up his face, draw up his legs, move away from the palpating hand or even say "Ouch!" Such information is far more reliable with a child than the answers to questions, because even a child that knows that tenderness may mean an operation may possibly dissemble. Rectal examination in my experience is rarely a necessary procedure or one of much diagnostic value. A rectal examination is at best an unpleasant experience, is more or less painful under any circumstances, and it is difficult to get any information as to any particular point of tenderness under those circumstances. A rectal examination is of great importance, however, especially after operating when one suspects that there may possibly be an abscess in the pelvis.

Every case of appendicitis does one of three things and what ought to be done in the way of treatment naturally depends upon which one of these three things takes place: (1) An appendicitis may get well by itself. We know that to be a fact because the history of many a case tells us that the child has had other attacks before the present one. If one sees a case that is receding it is probably wise to omit operation until some later time but probably the appendix should be removed at a later time because of the probability of recurrence. I think there is no disagreement as to the opinion that every early case of appendicitis, in the first 24-48 hours, should be operated upon. (2) Instead of merely receding there is localization in the region of the appendix. In other words, one frequently sees a child on the third or fourth day of an appendicitis that is not very sick and in which there is a definitely palpable, sharply circumscribed, tender mass in the lower right quadrant of the abdomen. It is our practice, and we have never regretted pursuing that course, not to operate on those children at the time. I have seen a mass as big as a fist disappear completely. In some of these cases there is probably a mere matting together of the omentum, intestine, etc.; in others there is doubtless an actual rupture of the appendix with resulting walling off. These children should always be operated upon after a month or two, and at such times we have found a fecolith separate from the appendix or only a remnant of an appendix showing that the appendix had ruptured and yet the whole mass had disappeared. There are reasons why one would like to wait two or three months in order to have as nearly normal a condition as possible but having seen several cases in which there was a return of appendicitis within a period of a month, we usually recommend that the operation be done somewhere around the end of a month after the first attack or possibly a little later. (3) The appendix ruptures and instead of walling off there is a spreading peritonitis. These cases should probably all be operated upon because a peritonitis due to an appendix that is not either drained or in which the appendix has not been removed is not likely to get well without operation. The final chapter has probably not yet been written. I have recently heard from one center that they have treated 100 cases of ruptured appendix without operation with a mortality of 5 per cent and from another source that in 200 cases of appendicitis that were operated upon in all stages and conditions there was no mortality. I find it difficult from my own experience to have either fixed rules or 100 per cent favorable results, nor would I like to feel that a 5 per cent mortality was an optimal result.

Appendicitis is commonly easy to diagnose but by no means always and no matter how many cases one sees there are still many of them in which one is in doubt. A right-sided empyema or pleurisy may cause pain and some tenderness on the right side of the abdomen. Commonly the pain of pneumonia in childhood is below the diaphragm rather than above. If in doubt, x-ray will commonly clear the diagnosis, although it can usually be made from the fact that with pneumonia there is the characteristic appearance, the rapid breathing, the grunt, the high temperature and the high leucocyte count. I have seen pericarditis mistaken for an appendicitis.

Twisted ovarian pedicle can very closely simulate an appendicitis and it is of diagnostic value to know that with that condition there is commonly a very high leucocyte count, even up to 60-80 thousand. A perforating Meckle's diverticulum may so closely simulate appendicitis that it can be recognized only at operation. Carnet, in Philadelphia, has written a good deal about intercostal neuralgia that simulates appendicitis. It apparently occurs not so infrequently in the adult but I have rarely seen it in children. A differential point is that if the child is asked to take a deep breath and bear down or suspend the legs in the air so as to tense the abdomen, and the tenderness persists it is assumed to be due to an intercostal neuralgia; if it is no longer present it is assumed to be due to an appendicitis.

One of the common causes that leads to difficulty in diagnosis is the pain in the abdomen that occurs with other infections such as measles, scarlet fever, etc., but more especially with upper respiratory tract infections probably because these are so much more frequent than all other infections put together. Some years ago I was so struck by the frequency with which children had a pain in the abdomen when they had a throat infection that I wrote a paper on The Abdominal Pain of Throat Infections in Children. I called attention to the fact that there were possibly two types of pain, one of a rather colicky nature that practically always occurred around the umbilicus and the other of a more diffuse or scattered nature situated anywhere in the abdomen and commonly accompanied by some tenderness as well as pain. I unfortunately saw a number of children shortly after that paper appeared in which the physician in charge had failed to make a diagnosis of appendicitis because the child had an upper respiratory tract infection. I then reviewed the last ten cases of appendicitis that I had seen in practice and at least nine of these had had a preceding or concurrent respiratory tract infection with such evidence as a sore throat, a cough, an otitis media, even a mastoid. I found, too, that Evans at the University of Wisconsin where students are under careful control as to all their illnesses reported eight times as many cases of appendicitis during grippy epidemics as during non-epidemic periods. In other words, I am convinced that at least half, probably more, cases of appendicitis occur as an accompaniment, or sequel, to upper respiratory tract infections. There is a very striking similarity in structure of the appendix and of the tonsil, so much so that the appendix has been referred to as the 'abdominal tonsil,' and someone has even referred to appendicitis as "abdominal angina.' As an antidote, then, to my former paper I wrote a second on The Abdominal Pain of Throat Infections and Appendicitis, and emphasized the fact that I want to emphasize now, that if the symptoms and signs point toward an appendix in a child one must consider it so whether the child has a respiratory tract infection or not, possibly even more so if there is an upper respiratory tract infection at the time or immediately preceding the appendiceal infection.

As a matter of comfort to those who may have diagnosed appendicitis and found at operation that the appendix was normal but that there were a great many markedly inflamed and enlarged lymph glands in that region, I would like to say that none of us has ever acquired the ability wholly to avoid that error in diagnosis. There is considerable mystery as to the cause and nature of such lymphadenitis but it occurs often enough to be an occasional reason for disappointment at the hands of the most experienced.

A few words about peritonitis. Peritonitis is not always an easy disease to diagnose and the younger the child the truer this statement. It reaches its maximum in the infant where I think frankly it is sometimes fairly impossible to make the diagnosis. In general, there is much more pain than with appendicitis and there is tenderness and rigidity all over the abdomen almost from the start instead of remaining localized. The child usually looks sicker and after the disease has progressed for some time there is the typical Hippocratic facies, with an anxious, toxic, profoundly sick expression. The abdomen is commonly markedly distended and there is apt to be no audible peristalsis and no expulsion of either gas or feces. The treatment is intimately wrapped up in the etiology. In the older child the peritonitis probably more often follows a ruptured appendix than anything else. The younger the child the rarer it is to find this as a cause of a peritonitis. In other words, in the infant and in the young child peritonitis is commonly a complication of an infection somewhere else, such as a throat infection or a septicemia. There is one type of peritonitis that always deserves a special discussion, the so-called primary, pneumococcic peritonitis, although it is probably a misnomer to call it 'primary' and what is assumed to be a pneumococcic peritonitis is often enough due to a streptococcus. This is usually preceded by looseness of the bowels and occurs so predominantly in the female that it has been assumed by some that it is due to an ascending infection because of the fact that in the female the peritoneal cavity connects with the outer world. Peritonitis can of course also occur with intestinal perforations as in typhoid or with trauma, or from a ruptured retroperitoneal lymph gland. There is probably general agreement that a peritonitis secondary to a ruptured appendix should be operated upon. I think there is an increasing unanimity of opinion that primary peritonitis should not be operated upon at the time but that one should wait for localization before attempting surgical interference. If that is true it is evident that an accurate diagnosis is essential for rational treatment. In a young child or an infant in which there has been no predominating pain or tenderness in the region of the appendix and there is evidence of peritonitis it is probably wiser to assume that we have a so-called primary peritonitis to deal with. It is for that reason that diagnostic puncture has been advocated, notably by Denzer, of New York, just as one does a diagnostic puncture of the chest when one suspects an empyema. It is said to be a fairly safe procedure but I have myself always had considerable hesitation in resorting to it. There are, however, times when it should be done. If the puncture yields a mixture of organisms, usually predominantly a colon bacillus, it naturally means that there has been appendicitis and that it is a spreading peritonitis which should be operated upon. If, on the other hand, the culture yields pneumococci or streptococci or no organisms one can assume that we have to deal with a primary peritonitis. The fact that the latter occurs so predominantly in the female sometimes is a determining factor.

Hemorrhage from the Bowels. Duodenal and gastric ulcers are relatively infrequent in childhood. Hemorrhages may occur from esophageal varices, in cirrhosis of the liver, and Banti's disease or, what may be the same thing, thrombosis of the splenic vein. There are only two major types of hemorrhage that I would like to call your attention to that for one reason or another have been of peculiar interest to me. One of these is the so-called hemorrhagic disease of the newly born in which, as you know, there are hemorrhages from many sources other than the bowel; that is, there are hemorrhages into the skin, from the mucous membranes, into internal organs, from the vagina, etc. This practically always occurs about the third or fourth day of life; if untreated practically all of these children die. If treated properly they practically all live. In my earlier days I saw a good many of these, even two in one family, and all of them died. Today we know that if the condition is recognized and human blood or serum is injected they almost invariably survive. Hemorrhagic disease of the newborn must not be mistaken for a discharge of blood from the vagina or from the rectum only, in the first few days of life. These are usually harmless unless there are hemorrhages from many other sources.

The type of hemorrhage that I want especially to emphasize because I do not think it is recognized as often as it should be is that which occurs from an ulcerated Meckle's diverticulum. This is not so uncommon. I have seen at least fifteen cases. As you may recall, the omphalomesenteric duct before birth passes from the ileum into the cord. There are few simple anatomic structures that have as large and varied a repertoire of pathologic conditions as has the remnant of this duct which is known as Meckle's diverticulum. Commonly it disappears entirely or remains as a small out-pocketing of the ileum anywhere from a few inches to as many feet, commonly 10 to 15 inches, from the ileocecal valve. It may persist and remain patulous in which case feces are discharged from the naval. It may become infected and simulate appendicitis. It may produce intestinal obstruction or it may perforate and produce peritonitis. In at least four instances we have found it the starting point of an intussusception. The most frequent, alarming and arresting symptom is a copious hemorrhage from the bowels. There is usually a frank hemorrhage. The blood may be dark or bright red, depending upon the rapidity with which it is carried to the surface. It is practically always clotted, a valuable point in differentiation from intussusception and ileo colitis, in the former of which this never occurs and in the latter very rarely. There is practically no pain unless there is also a perforation. I think I can bring the condition home better by citing a case or two. One of the most striking instances I have ever seen was one I saw with Dr. Blessing, of Evanston. This boy, about 12 years of age, had had some hemorrhage from the bowels during the day time but things seemed better toward evening. The mother then became alarmed because even though there was no evident hemorrhage, the child was becoming pale and listless. Dr. Blessing made the diagnosis of a bleeding Meckle's diverticulum and asked me to see the child with him. When I got there within 15-20 minutes, the child was as exsanguinated as any child I have ever seen. He was as white as a corpse with lips of an ominous pale blue, and with sighing respirations. His pulse was barely detectable. We had a little trouble convincing the surgeon as to the etiology of the condition and also as to the advisability of operating under such conditions. The child was operated upon at the same time that a transfusion was being given. The whole bowel from the lower end of the rectum up to Meckle's diverticulum was bluish and distended with blood. The Meckle's diverticulum was about the size of the distal phalanx of a finger and on careful examination one found within it an ulcer about the size of a head of a common pin. The boy made an uneventful recovery. A second child of about 11 months of age had several hemorrhages and the doctor had thought it had an intussusception and had attempted to reduce it by injecting barium. The condition did not seem alarming when it first came to the hospital and we waited a short time. The child then had a copious hemorrhage mixed with barium. He was operated upon and an identical condition with that of the other one was found, again to be followed by a rapid recovery.

From what I have said it is evident that ulcers occur in the mucosa of Meckle's diverticulum. As a result not only may there be hemorrhage but also perforation with localized peritonitis. The two may occur together. As an illustration and also to emphasize a typical point the following case may be cited: This child came to the hospital and was seen by Dr. Alexander. Illness began suddenly with a sharp pain, there was blood in the bowel movements, and there was a tender area over a vague mass in the region of McBurney's point. We always try to trip up one another on diagnosis so I was asked my opinion. I said it looked to me like an intussusception. Dr. Alexander said he didn't agree with that, he thought it was a bleeding and perforated Meckle's diverticulum. That sounded reasonable but a bit ambitious. I asked the mother whether she had brought one of the baby's stools with her. She said she had but that it was in one of the other buildings. I asked her to get it and when I saw the stool with a lot of clots in it up to the size of a filbert, I, too, had no hesitation in thinking that the child had both a bleeding and a perforated Meckle's diverticulum.

The question naturally arises, why should there be ulceration of the mucosa of Meckle's diverticulum? This embryologic remnant is peculiar in that it contains what has been spoken of as "misplaced tissues." Quite commonly one can find in sections areas of gastric mucosa, of pancreas and of other tissues. Just as we can have a duodenal or gastric ulcer so in Meckle's diverticulum we can have an analagous ulceration with perforation and (or) hemorrhage. Hemorrhages can occur from other sources than I have mentioned; for example, with Henoch's purpura or papilloma of the rectum. The former is usually accompanied by pain and invariably, at least after the first day or so, by petechiae in the skin; the latter either evident on the surface or made out by digital or proctoscopic examination. I would like to stress that the commonest cause of a copious hemorrhage with clotting is a bleeding Meckle's diverticulum. Of some diagnostic value is the occurrence at one time of a dark stool, at another time of a light stool. As you know, hemorrhage from a high point like the stomach or duodenum usually leads to a black stool whereas a hemorrhage from a low point usually leads to the expulsion of bright red blood. Coming from an intermediate point it may be either dark or light, depending upon how rapidly it is expelled and a bleeding Meckle's diverticulum is far and away the commonest intermediate point. I said before that the blood of an intussusception never coagulated. There is an exception to this if the starting point of the intussusception has been a Meckle's diverticulum. In that case there may be a freer hemorrhage accompanied by clotting.

In conclusion I want to thank you for asking me to address you, for your patience in listening to me through this long talk, and for giving us an exhibition of your Southern hospitality which Dr. Holinger and I have enjoyed to the full.

The Diagnosis And Treatment of Diseases of the Esophagus*

PAUL H. HOLINGER, M.D.
Chicago, Illinois.

The diagnosis and treatment of diseases of the esophagus present a number of interesting problems. Esophageal disease is, in certain respects, obscure, because the esophagus cannot be examined by the customary inspection, palpation, percussion, and auscultation that is used in establishing the diagnosis of other intrathoracic lesions. The early symptoms are usually so slight and insignificant that the patient regards them merely as an annoyance and does not seek medical aid until severe dysphagia develops. These early symptoms often do not seem to warrant a series of diagnostic tests, and the lesion only too frequently is regarded as functional rather than organic. However, it is early diagnosis which must be stressed, and, therefore, other diagnostic aids such as the fluoroscope and esophagoscope must be included in the routine study.

"Lump in the throat," difficulty in swallowing, and pain on swallowing are the most common esophageal symptoms, and are frequently misjudged as neuroses or hysteria. These symptoms may be sudden in onset as with a foreign body accident, or they may be indefinite, slowly progressive, or irregularly present only during deglutition. Constant pain, except late or in the acute lesions, is so characteristically absent that this symptom does not aid us in early diagnosis[1].

The history is of first importance to an examination of the esophagus. Not infrequently a careful history will elicit an etiologic factor of utmost value in aiding in the diagnosis and subsequent treatment. The physical examination of the patient should include, beside the routine examination of the chest and abdomen, a careful palpation of the neck for possible tumors compressing the esophageal lumen. It should likewise include a mirror examination of the larynx since, with a history of pain on swallowing or difficulty in swallowing, the lesion may be laryngeal, tonsillar, or hypopharyngeal, as well as actually within the esophagus itself. Routine laboratory tests aid in differentiating esophageal manifestations of systemic disease, such as the dysphagia frequently associated with pernicious anemia.

Prior to the direct endoscopic examination of the esophagus, roentgen examination, both fluoroscopically and radiographically, is imperative. The fluoroscopy is done with both thin and thick barium and a capsule, if necessary, and is followed by films taken after swallowing barium paste. Lateral x-rays of the neck, soft tissue technique, both before and after barium, are of extreme value because the soft tissues of the cervical esophagus can be silhouetted against the trachea, demonstrating inflammatory swelling, tumors, or foreign bodies. In spite of the fact that a large percentage of esophageal lesions are to be found in this area, it is frequently overlooked in esophageal films. Thus, the x-ray examination of the esophagus should not be based upon the interpretation of one or two films, but should be a thorough roentgen study[2].

The increasing use of the esophagoscope in recent years has permitted the inspection of the esophageal lumen in many cases other than those of foreign bodies, for which this speculum was originally devised. Foreign bodies now make up only a small percentage of cases in which the esophagoscope is used diagnostically or therapeutically. **With positive roentgen ray findings** the esophagoscope is used to examine the lesion under direct vision, to determine its nature and extent, and to remove tissue for biopsy in suspicious cases. Lesions which appear irregular and show an increasing tendency to obstruct the esophagus cannot be considered malignant until proved so by biopsy. (Fig. 1). **With negative roentgen ray findings**, on the other hand, the direct esophagoscopic examination is likewise indicated if esophageal symptoms persist. Ulcerative lesions and the acute inflammatory processes can rarely be demonstrated roentgenologically.

Thus, the esophagoscopy is the final step in the diagnosis of esophageal disease. It follows the other diagnostic procedures and establishes the diagnosis not by inference but by specular study of the lesion, the interpretation being aided by the preliminary studies.

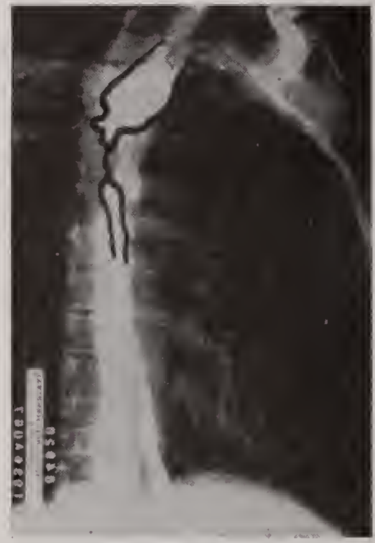
With these factors in mind, I should like to review some of the more common esophageal lesions, emphasizing the important diagnostic features as well as the endoscopic picture.

---

*Read before the Section on Medicine at the Seventieth Annual Session of the Mississippi State Medical Association, May 11, 1937.

1. From the Bronchoscopic Clinics of the Children's Memorial Hospital, St. Luke's Hospital, and the Research and Educational Hospital of the University of Illinois, Chicago.

Congenital Atresias. Completed atresia is probably the most common of the congenital esophageal anomalies. There are two main types. In the first, comprising 70 to 80 per cent of these lesions, the upper segment ends in a blind pouch at about the level of the bifurcation of the trachea or slightly above it, and the lower end is connected to the trachea by a short fistulous tract.



(Fig. 1)

The symptoms are classic. There is a constant flow of saliva from the mouth. With feedings, the first two or three swallows are normal, then suddenly the fluids return through the nose and mouth, the child coughs, struggles, turns cyanotic, and may stop breathing. This cycle is repeated with each attempt at nursing[3]. The stomach becomes distended with air, and bile and gastric secretion may be collected from the regurgitated material because of the fistula between the lower segment and the trachea.

The diagnosis is made by the return of fluid through the nose and mouth of the newborn, synchronous with the act of swallowing, usually after the second swallow. Associated with this, there is a flow of saliva from the dependent corner of the mouth between feedings.

In the second type, the upper segment opens into the trachea and the lower is either a blind pouch or also enters the trachea or bronchus. In this type of case, the infant usually drowns with the first feeding or develops a fatal aspiration pneumonia within a day or two.

Treatment and Prognosis: These infants all die in spite of the recent advances of surgery. Withholding fluids by mouth prevents aspiration pneumonia, but rectal and subcutaneous fluids must be given, at least temporarily. Gastrostomy, the operation usually proposed, results in flooding the lungs with fluids at each feeding because of the treachea-esophageal fistula of the lower segment. Therefore, if a gastrostomy is the operation of choice, the cardia must be closed by ligatures. Jejunostomy seems a more reasonable procedure, but the operative mortality from this operation is very high in infants.

Congenitally Short Esophagus. This lesion, first recognized as a clinical entity a few years ago, is more common than was at first thought[4]. The clinical picture is characterized by dysphagia, regurgitation, malnutrition in infants and children, with frequent attacks of complete obstruction of the esophagus. In adults, there is constant regurgitation of food, substernal fullness, or even typical ulcer pains high in the epigastrium or radiating through to the back. Occasionally temporary obstruction due to a foreign body leads to an x-ray study which reveals the stricture in the mid-thorax. This stricture is actually the cardia in the mid-thorax with the short esophagus above it and true gastric mucosa with rugae below. These rugae can be followed through the diaphragm as a continuation of the rugae of the subdiaphragmatic stomach. The fact that the cardia is so markedly stenotic accounts for the symptomatology. Treatment consists of constant dilatation of this stenosis under direct vision. It is peculiarly resistant to therapy, however, and frequently one must resort to gastrostomy and retrograde dilatation. Ulcers in the supradiaphragmatic stomach require routine ulcer management.

Ulcers. Ulcers of the esophagus are found most commonly in the lower one-third, where islands of gastric mucosa have been demonstrated. Symptoms of these ulcers are similar to those of peptic ulcer of the stomach; namely, pain and burning at a definite interval after eating. This pain is directed immediately substernally or to the back[5], and is relieved at once with alkalis. Similar ulcers occur after acute infectious diseases, especially typhoid fever and scarlet fever, and may be followed by stricture formation. Caustics and trauma likewise produce acute ulcerations and erosions.

The endoscopic appearance of the peptic ulcer is that of an acutely inflamed, freely bleeding area covered with a whitish exudate. The acute phase responds satisfactorily to routine ulcer management, but as healing progresses, frequent dilatation is necessary in order to prevent cicitricial stenosis.

Cardiospasm. This condition, also called achalasia and preventriculosis, is characterized by a marked dilatation of the esophagus, the barium column terminating in a fine point as it approaches the diaphragm. Symptoms are difficulty in swallowing, regurgitation of undigested food, and loss of weight.

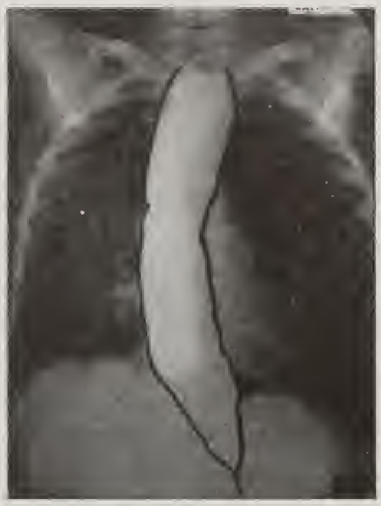
The esophagoscopic appearance is rather characteristic. On introducing the esophagoscope, a marked quantity of undigested food is found lying in the redundant esophagus. The mucosa is generally coated with exudate and is pale except in areas where fermented food has caused ulceration. The advancing esophagoscope can be passed through the cardia without resistance into the stomach. In cases of long duration, repeated esophagoscopies show rather definite clearing of the ulcerated areas and a diminution of the amount of exudate covering the mucosa.

The etiology of this condition is not yet entirely understood, although frequently it is associated with liver damage and infection of neighboring organs[6]. In cases of long standing there is marked fibrosis and disorganization of the musculature of the lower end of the esophagus. The Meisner-Auerbach plexus is definitely destroyed, and there is a failure of co-ordination of the entire act of swallowing[7].

Treatment consists of repeated dilatation of the hiatus with the esophagoscope, a mercury bougie, or a pneumatic bag accurately placed under fluoroscopic guidance[8]. Belladonna derivatives are of some benefit in early cases, but are apparently of no avail in advanced cases. (Fig. 2).

Strictures. The most common type of stricture found in the esophagus follows the swallowing of caustics. Of these, the lye strictures are the most resistant, requiring years of repeated dilatations in an effort to return the esophageal lumen to its normal size. Instrumentation must not be done immediately after the accident. If the patient is unable to swallow, an early gastrostomy is indicated, both to supply necessary fluids and to prepare for future dilatation.

X-ray studies made a month or two after the ingestion of the caustic may reveal little or no narrowing of the lumen, but esophagoscopy should be done in an effort to prevent the formation of strictures. If the obstruction is marked, gastrostomy must be done, and a string passed through the nose and retrieved from the gastrostomy opening. Retrograde dilatation[9] along this string is the safest method of treating the strictures, as well as the quickest, since all strictures can be dilated at once by the passage of retrograde bougies. It may take months of such dilatation to return the esophageal lumen to normal, and years of treatment to keep it patent.



(Fig. 2)

If the stricture is complete and the string cannot be passed from the mouth to the stomach, an effort can be made to open the lumen under biplane fluoroscopic guidance. Only in this manner may the upper and lower segments be visualized successfully in both planes and a relatively safe puncture of the stricture made.

Diverticula. There are three common sites of diverticula: (1) the hypopharynx, (2) at the aortic arch, and (3) at the cardia. The first of these, the hypopharyngeal diverticulum, is the most common and is a pulsion type of diverticulum. The mucous membrane herniates through a weak spot in the musculature of the posterior wall of the hypopharynx, and the gradually increasing size of the sac thus formed gives the symptoms of gurgling on swallowing, difficulty in swallowing due to compression after the sac is filled, and regurgitation of undigested food immediately after eating.

X-rays reveal a small, though sometimes golf-ball-sized sac lying immediately below the level of the larynx and posterior to it, with a thin stream of barium trickling down into the subdiverticular esophagus. Due to the steady increase in size of these sacs, surgical removal is indicated. This can be done in either one[10] or two[11] stages. We prefer the single stage operation, the esophagoscope being kept in the sac as the surgeon dissects it free and sutures its base.

Diverticulae at the aortic arch are generally of the traction type, and as a rule follow tuberculous contracture. These are rather rare and, unless extremely large, cannot be approached surgically.

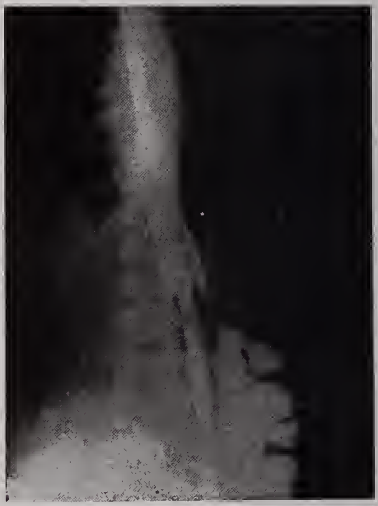
The diverticula at the cardia are sometimes confused with hiatal hernias of the stomach, but differential diagnosis can be made fluoroscopically. Unless extremely large, diverticula at the cardia cause no symptoms. The symptoms which do occur, however, are caused by a filling of the sac with a resultant compression of the esophagus. Dilatation of the subdiverticular esophagus gives marked relief to these patients. Recently surgical anastomosis of the diverticulum with the cardia of the stomach has been suggested, and is an increasingly safe procedure.

Hiatal hernia is a herniation of a portion of the stomach through the diaphragm at the hiatus. Examination of the esophagus under the fluoroscope should always include the examination of the patient in the prone position in an effort to determine whether a portion of the cardiac end of the stomach herniates through the diaphragm and remains filled with barium. These sacs, containing gastric mucosa, frequently give symptoms of peptic ulcer and true peptic ulcers may arise within them. They may be congenital because of a defect in the diaphragm, but are most commonly acquired and result from lifting heavy objects or from a blow on the abdomen.

The ulcer pain is relieved by the usual ulcer regime, but further treatment must be directed at dilating the hiatus in an effort to permit the sac to be constantly evacuated.

Malignancies. Esophageal malignancy is almost 100% fatal. Symptoms in advanced cases are too well known to require detailed discussion. The history is usually that of increasing difficulty first in swallowing solids and then later liquids, over a period of several months to a year or more. Early, the symptoms are only too frequently disregarded entirely or diagnosed as globus hystericus[12]. As with other malignancies, only the early cases may be considered surgically. With the increasing ability of thoracic surgeons, these lesions will lend themselves more readily to surgery, but still the plea for early diagnosis must be made, and diagnostic esophagoscopy done in the presence of slight symptoms, in spite of a negative esophageal x-ray. In this manner the lesion may be studied grossly, its extent accurately noted, and tissue removed for biopsy. (Fig. 3).

Intra-esophageal tumors are principally of two types: (1) the squamous cell type usually found in the upper portion of the esophagus which can be benefited to some extent by x-ray and radium therapy[13]; (2) the adenocarcinoma, most common in the lower portion of the esophagus, which is very resistant to x-ray therapy and is usually seen too late for surgery. In extremely early adenocarcinomas, however, resection of the cardia and the lower end of the esophagus can be done and has resulted in an occasional cure[14].



(Fig. 3)

The non-stenosing types of carcinoma are most frequently diagnosed because of the compression of the esophageal lumen by metastatic glands. Similarly, external or mediastinal tumors may be first diagnosed by the esophageal compression.

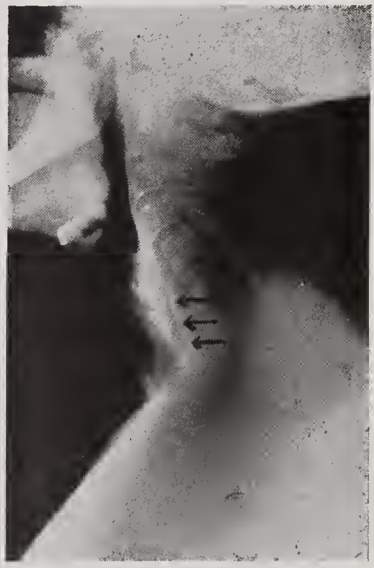
Foreign Bodies in the Esophagus. There are three normal narrowings which constitute the usual sites of lodgment of foreign bodies in the esophagus. The first is at the upper thoracic aperture which is immediately below the cricopharyngeus muscle. At this point the musculature is weak as compared with the strong muscles immediately above, whose contraction brings the bolus of food or the foreign body to that point. Thus, not only because this area is anatomically narrow do most foreign bodies lodge here, but also because the force necessary to continue them on their course is lacking. The narrowing at the hiatus of the diaphragm and the cardia constitutes the second most common site in the lodgment of the foreign body. Few foreign bodies lodge here once they have passed the upper thoracic aperture. The third normal narrowing of the esophagus is at the level of the arch of the aorta, and is of little importance in this regard.

The diagnosis of a foreign body in the esophagus is most frequently made by a careful interpretation of the history. The patient generally states that he has swallowed something which has "stuck" and causes considerable pain on further swallowing. The pain is usually referred to the level of the larynx, but generally the foreign body lodges considerably below this. Meat bones and fish bones cause intense pain on swallowing. Difficulty in swallowing or refusal of solid or liquid food in children suggests an esophageal foreign body.

It is possible to have a foreign body lodged in the esophagus without symptoms of any type being present. Therefore, in spite of a lack of symptoms, if the history is positive, there is no reason to discontinue the search for the foreign body and every reason to make it as complete a one as possible. Generally, however, positive symptoms are present, and these are, essentially, difficulty in swallowing and pain on swallowing. The patient may not be able to take solid foods and occasionally not even to take liquid foods. When the obstruction is absolutely complete, the patient is unable to swallow his saliva and constantly drools following the foreign body accident. There is, of course, regurgitation of all liquids or solids swallowed. The pain is usually located at the level of the thyroid cartilage. It may radiate back between the shoulder blades if the foreign body lodges near the cardia. The initial symptoms of a foreign body in the esophagus are frequently identical to those of a foreign body anywhere in the air or food passage; namely, choking, coughing, gagging, dyspnea, and cyanosis. They may entirely disappear for a time after the foreign body has become fixed—the so-called symptomless interval which Jackson stresses[15]—until signs of obstruction or infection follow. Only careful inspection by roentgen ray and direct means will locate the object.

There are certain laryngeal symptoms produced by foreign bodies in the cervical esophagus. Dyspnea due to compression of the trachea may be severe enough to require a tracheotomy before the foreign body can be removed. This is especially true of jack stones where one of the many points may press forward completely to obstruct the trachea. Cough and hoarseness follow obstruction of the cervical esophagus because of the irritation caused by secretions overflowing into the larynx. Similar symptoms would follow should the foreign body erode through the parting wall.

With the positive history, complete search of the gastrointestinal tract must be made in an effort to locate the foreign body. The negative history must be ignored if the symptoms are positive, and a thorough search is again indicated. This examination should include search of the nose, postnasal space, the pharynx, the esophagus, the tracheobronchial tree, the stomach, and the entire intestinal tract. Mirror examination of the larynx and hypopharynx is indispensable in adults. Besides this routine examination and the direct examination of the mouth and hypopharynx in children, roentgenological examination is by far the most important. The first examination should be fluoroscopic in an effort to locate the foreign body. Following this, chest films should be made without barium in order not to coat the entire esophagus with barium and make a direct examination more difficult if the intruder should be found in this preliminary study. The lateral x-ray of the neck (Fig. 4) for soft tissues is extremely valuable because

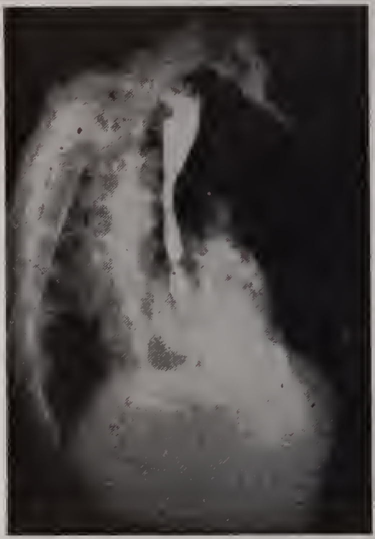


(Fig. 4)

of the high percentage of foreign bodies which lodge in the cervical esophagus. It should be taken with chin extended, shoulders drawn backward and downward. It reveals the space just behind and below the cricoid cartilage which is the most common point of lodgment of foreign bodies. In order to get an absolutely accurate visualization of the size of the foreign body, 2 meter films must be taken. This is important in planning the method of extraction to be used. The question frequently arises as to whether the foreign body lies in the trachea or in the esophagus. This can be determined from the lateral film and from a general rule that flat objects lying in the esophagus lie in the coronal plane, whereas if they are in the trachea, they usually are in the sagittal plane.

Treatment of foreign bodies in the esophagus consists of only one method which is safe enough to be considered. Esophagoscopy with the lumen of the esophagus always visible must be resorted to. Only in this manner can the foreign body be approached safely and removed. Blind methods are inaccurate and frequently fatal. To push the foreign body blindly into the stomach may cause laceration of the esophagus. The use of apomorphine is contra-indicated when the foreign body is in either the esophagus or the stomach because the retching may cause penetration of points into the esophageal wall, or, if the foreign body is in the stomach, may cause it to regurgitate into the esophagus and become imbedded there. The problems of removing foreign bodies esophagoscopically are entirely mechanical. Therefore, it is necessary that a mechanical solution of the problem be known before an attempt is made at the actual removal. The short delay required to plan the procedure is not dangerous, while the hurried esophagoscopy done with inadequate instruments and preparation of the patient with a hasty attempt at removal may be fatal.

Foreign bodies obstructing the esophagus cause complications either due to lack of nourishment because of obstruction or to perforation. Dehydration is a serious complication in children who have been unable to swallow because of an obstructive foreign body or the regurgitation and vomiting caused by its presence. It may be necessary frequently to combat dehydration with intravenous or subcutaneous methods of administration of fluids before any attempt is made at endoscopic procedure. Perforation may be caused by the mere presence of the foreign body itself if it has been allowed to remain in the esophagus for a long period of time, when it may erode through the wall into the mediastinum, thorax, trachea, or the bronchus. Operative attempts at removal, both blind and esophagoscopically controlled, occasionally may cause perforation. Foreign bodies of long standing result in ulceration which may be followed by cicatricial stenosis after the foreign body has been removed and the ulcer healed. Frequent dilatation may be necessary to avoid this complication.


(Fig. 5)

Perforation of the Esophagus. This can result from blind instrumentation for foreign bodies, biopsy, or trauma. The signs are cervical emphysema, prostration, pneumothorax, and mediastinitis with rapidly rising temperature and death.

Treatment of perforation of the esophagus is to withhold all food and fluids by mouth, but to maintain the fluid intake by parenteral methods.

Prophylactic mediastinotomy in cases of suspected esophageal perforation will give early drainage and will possibly prevent infection of the entire mediastinum[16]. In known cases of mediastinitis where infection is advancing, mediastinotomy should also be done, but only too frequently the infection has progressed beyond the point where drainage will be of any avail. The surgical indications and operative technique have been described elsewhere[17].

SUMMARY

1. Early symptoms of organic esophageal disease are indefinite and may easily be re-

garded as functional.

2. The diagnosis of disease of the esophagus rests mainly upon the roentgen study and the esophagoscopic inspection of the esophagus.
3. The diagnostic and therapeutic features of the more common esophageal lesions are presented.

BIBLIOGRAPHY

1. Clerf, Louis H.: "The Diagnosis of Diseases of the Esophagus," Virginia Med. Monthly, August, 1926.

2. MacMillan, A. S.: "Statistical Study of Diseases of the Oesophagus," Surg., Gynec. and Obst. 60, 394, 1935.

3. Brennemann, Joseph: "Congenital Atresia of the Esophagus, With Report of Three Cases," Am. J. Dis. of Child. 5, 143, 1913.

"Congenital Atresia of the Esophagus, With Report of Four Additional Cases with Three Necropsies," Am. J. Dis. of Child. 16, 143, 1918.

4. Clerf, Louis H., and Manges, W. F.: "The Congenitally Short Esophagus," Jour. Am. Med. Association. 102, 2008, 1934.

5. Jackson, Chevalier: "Peptic Ulcer of the Esoph-

7. Etzel, Eduardo: "Megaoesophagus and Its Neuropathy," Guy's Hosp. Rep. 87 (No. 2), 158, 1937.

8. Jackson, Chevalier L.: "Treatment of 'Cardiospasm' With Notes on Diagnosis and Etiology," Arch. Phys. Therap., X-ray, Radium, 15, 172, 1934.

6. Mosher, H. P.: "The Oesophagus," Surg., Gynec. and Obst., 60, 403, 1935.

9. Tucker, Gabriel: "Strictures of the Esophagus. agus," Jour. Am. Med. Assoc. 92, 369, 1929. Diagnosis and Treatment," Laryngoscope, June, 1931. ¼

10. Jackson, Chevalier, and Jackson, Chevalier L.: "Diseases of Esophagus," The Cyclopedia of Medicine, 5, 445, 1932.

11. Lahey, F. H.: "Pulsion Esophageal Diverticulum," Jour. Am. Med. Assoc. 109, 1414, 1937.

12. Jackson, Chevalier, and Jackson, Chevalier L.: **Bronchoscopy, Esophagoscopy, and Gastroscopy.** W. B. Saunders. 1934.

13. Lederer, F. L.: "Cancer of the Head and Neck," Arch. Physic. Therap., X-ray, Radium, 15, 517, 608, 1934.

14. Churchill, E. D.: "Esophageal Surgery," Surg., Gynec. and Obst. 60, 417, 1935.

15. Jackson, Chevalier, and Jackson, Chevalier L.: **Bronchoscopy, Esophagoscopy, and Gastroscopy.** W. B. Saunders. 1934.

16. Lederer, F. L., and Fishman, L. Z.: "Prophylactic Mediastinotomy for Perforating Esophageal Foreign Bodies," Arch. of Oto. 19, 446, 1934.

17. Furstenberg, A. C., and Yglesias, Luis: "Mediastinitis," Arch. of Oto., 25, 539, 1937.

The Modern Concept of Sinus Surgery "Versus" the Old Idea, Once A Sinus, Always A Sinus*

VIRGIL L. PAYNE, M.D.
Pine Bluff, Ark.

During the past few years, sinus surgery has received so much unfavorable criticism, until now it is quite difficult to have a patient submit to a sinus or nasal operation. This is due to several factors; discouraging results to the patients, who have coined the expression, and passed it on to all their friends, "Once a sinus always a sinus." But the real cause lies in a faulty diagnosis and too hurried operative interference. Just as in other branches, so it is in sinus surgery, there are waves of radicalism followed by those of conservatism, and each wave or generation thinks its method superior. So upon the shoulders of our generation, falls the task of restoring surgery of the paranasal sinuses to its rightful place in the medical sun, from which it was toppled by the last wave of radical sinus surgery. Allergy, endocrinology, and a keener sense of cooperation between all the branches of medicine and surgery, will do more to restore the confidence of the laity in sinus surgery than anything I know. Besides the dissatisfied patient, the referring doctor has done much toward a furtherance of the disrepute into which sinus surgery has been placed, so later on I hope to show him why he should not place all cases with a diseased nasal sinus in the non-surgical class.

On numerous occasions patients have come into my office saying Doctor So-and-So had sent them for an examination of their noses and paranasal sinuses, for they had had a bad cold which hung on too long, or had had flu from which they just could not get back to normal, and were blowing thick yellow or greenish discharge from the nose, but always with the instruction, "Whatever he finds, don't let him drain your sinus." This happened so frequently that it was beginning to get under my skin, for well did I know that this same doctor, should there be pus behind a red bulging eardrum of a crying child, or in an empyema, or pus confined anywhere in the body, would advocate its early removal, or drainage, and before it affected other organs or systems of the body, so I began to ask my fellow rhinologists in various cities if they were having difficulty in getting patients to have sinuses punctured, or submit to surgery when such treatment was indicated, or if patients complained, "No, I don't want my sinus punctured, for they tell me if you start that once, you have to keep it up, for no one ever gets well from sinus trouble." Or if you suggest an operation, they reply, "No, sir, Dr. Jones told me one operation leads to another, and there is no end to it." And I soon found out it was to my colleagues, just as to me, like waving the scarlet flannel before the bull. I began to think more and more about this, comparing our results in sinus surgery and treatment, with the various other specialties of medicine and surgery and their results, and it appeared to me the rhinologist was getting a little the worst of the deal.

My friends, in my little paper today, I do not intend to belittle any branch of medicine, nor group of men, only to state bare facts, some as I have seen them and others I learned in the hard school of experience; then finally try and show that sinus disease when properly diagnosed and treated is a curable disease. I must grant in the beginning that there have been many allergic sinuses drained and operated upon in the past years, that should never have been touched, and the results were anything but pleasing to either the doctor or patient, but this just as in other branches of medicine, must be blamed on faulty diagnosis. Compare these with the number of abdomens that have been opened with a preoperative diagnosis of acute appendicitis, only to find a normal appendix, and the surgeon later finds to his humiliation there was a kink, stricture, or stone in the right ureter that caused the pain in the lower right quadrant, or worse than this, he closes the abdomen without ever finding the cause of the pain. The case goes down in the records with a pre- and postoperative diagnosis of exploratory laporatomy. Would that we could use exploratory sinusotomy!

Going on up the right side, what about the gallbladder? Are not the results in cholecystectomies as well as cholecystotomies, anything but gratifying? How many times after a cholecystectomy have you seen a continuance of the symptoms—pain, jaundice, gas formation, or a stone in the common duct? I recently heard Dr. Eyerman, of St. Louis, state that he knew a patient who had a cholecystectomy performed for abdominal pain with no relief, a second abdominal operation, and then a third in the lower right quadrant, but the pain still persisted. His doctors were in a quandary. One day he asked them, "Do you suppose egg yolk could cause this pain? When I was a child, my mother said I could never eat eggs without getting sick." Egg yolk proved to be the cause of his paroxysmal abdominal pain. This makes the results in sinus surgery look better.

---

*Read before the Section on Medicine at the Seventieth Annual Session of the Mississippi State Medical Association, May 13, 1937.

The gynecologist sometimes has harsh things to say about sinus surgery, so we shall take a peek into his glass house. How many women between, say 35 and 45, consult the rhinologist and give this history: "Doctor, my head hurts all the time, aches all over, my eyes feel like they will pop out, ears ring and roar," and by this time, tears fill her eyes and she ends by saying, "I am just a nervous wreck." And she really is. You can nearly always be safe in asking this patient, "Did you have a pelvic operation several years ago, or application of radium, and have not menstruated since?" Recently, a woman came to me with just such symptoms and history, and said a very prominent doctor, in one of our larger cities, had removed her ovaries, tubes, and uterus, for headaches, two years previously, but she still has headaches. Would I be justified with my meager knowledge of gynecology, should a woman come to me for advice relative to some female disorder to refer her to a gynecologist, but caution her, "Now whatever he finds, don't let him do any pelvic surgery on you."

Our good friend, the allergist, also once in a while, takes a poke at our already blackened and rapidly swelling eye, but he is like the rhinologist now, also with his feet in hot water, for some patients say, "No, I won't be tested—I had a friend who had his back all scratched up and took a lot of shots for several years, and is still no better." I have also referred patients suffering from nasal sinus due primarily to allergy, and in whom the allergist said he knew the sinus involvement was due to allergy, but he could not find out the cause. The patient will never say the allergist failed to cure his sinus trouble, but that the rhinologist did him no good. Such as the above does not alter my faith and regard for the allergist, but only makes me insist that the patient be not too easily discouraged,, and that he must help us in curing a disease that sometimes calls forth all our laboratory procedures and diagnostic acumen. No two branches of medicine are more closely intermingled than allergy and rhinology, and in their cooperation, the solution of many of our hardest problems lies.

Next as to the stomach, hyperchlorhydria, peptic ulcer, and the like. Are their results far ahead of those in diseases of the sinuses? Pardon a personal allusion, but in February, 1931, following intestinal influenza, I had a severe gastric hemorrhage, which lasted several days, and caused my good doctors fear for my recovery, I was told; however, several transfusions, medical skill and a lot of praying, for, my friends, if you ever get real scared. prayers just come forth, had me out of the hospital in about a month, and embarking on a three years' journey, trying to regain my health, so I could resume practice. During the three years, I traveled north, east, south and west, spending the cold months in Florida and the hot in Colorado, consulting the best doctors and clinics in the country. No two told me the same thing. Some said I had a duodenal ulcer, others I did not; still others diagnosed the case allergy, and one endocrine dysfunction. I was put in one of our best hospitals for observation on the routine milk, cream and alkaline powder regime with the admonition that if the acids of my gastric juices were not lower at the end of a week, a pyloraplasty would be performed. The acids were even higher after a week's treatment, and so remained for four weeks. At this time, I was discharged with no explanation of why I was not operated upon, but instructed to return in two months for further observation. Seven months after the first hemorrhage I had an acute attack of appendicitis, which required immediate operation. I was hopeful that at the time of operation the surgeon could observe my stomach and duodenum, but there was free fluid in the peritoneal cavity, and he was afraid to do much exploring in the upper abdomen, so the appendix was removed and incision closed; so near and yet so far, from the information that I had so hoped for. Many encouraged me that now my ulcer symptoms would clear up, that the appendix was the probable focus of infection. I was better for a few weeks, but soon the old gnawing pain, gas and burning returned. At the end of three years, I was no better, so resumed practice in March, 1934, having only had one severe hemorrhage since and that during A. M. A. Convention in Atlantic City in 1935. Please do not get the idea that I hold any enmity toward the doctors, who were so kind to me all during my illness, for I shall ever be grateful to them, and must say that had I had millions, they could not have done more, as no stone was left unturned to reveal the cause of my illness, and I only mention it to show that just as in some cases of sinus disease, our results are not always gratifying, because it is exceedingly difficult, even with all the means our modern laboratories afford, to find out the exact cause of a disease.

In order to make a correct diagnosis and differentiate between normal and pathological sinuses, I think it is essential to know the morphology and development of the paranasal sinuses—which sinuses we have at birth, size,, development, etc. At birth anterior ethmoid is an evagination below middle turbinate, postethmoid cells evagination above middle turbinate. As early as second year an anterior ethmoid cell migrates upward into the frontal bone to form the frontal sinus. Post ethmoid cell forms spheniod and by 4th year is completely encapsulated by the sphenoid bone.

The maxillary sinus is the most constant of all the sinuses. Starting as a slit-like cavity in the membraneous lateral wall of the nose, it continues to grow throughout life by a process of pneumatization and encapsulation. Dr. John Shea, with whom I had the good fortune to be associated and to assist, for five or six years, has shown that the upper teeth, both deciduous and permanent play an important part in the morphology of the maxillary sinuses, and every effort should be made to have the upper teeth erupt properly so that the maxillary sinuses and floor of the nose will develop properly, for sinuses stunted in their development tend to form chronic sinuses in the older child and adult. It is much easier to cure an acute infection in a sinus than a chronic one, when the mucous membrane has lost most of its immunizing ability through recurrent infections.

The pediatrician who usually sees the child with his first bad head cold can do much to prevent a sinus becoming chronic or arrested in its development by instituting proper treatment, or if the discharge becomes thick and yellow, referring the child to a rhinologist for drainage. Sinuses grow by the air they receive. Quoting from Dr. Shea, "An infection which has arrested the growth of a sinus cannot be considered eradicated until pneumatization has been reestablished,"—and this reestablishment can only be accomplished by ventilation and drainage, which even in allergic sinus disease is not contraindicated. One axiom of surgery is, wherever pus is found, drainage should be instituted; however, radical sinus surgery is contraindicated in the so-called allergic or vasomotor rhinitis cases. Too often the pediatrician conscientiously, ill-advises the parents, "Do not have your child's sinuses drained," when he could prevent future chronic sinus infection by advising, "Give those infected sinuses conservative drainage, then determine the causative factor, whether it be allergic, endocrine dysfunction, infection per se, or a combination of the above, and remove it."

For the modern treatment of nasal sinus disease, I think Dr. Cary, of Dallas, Texas, hit the nail squarely on the head when he said, speaking before a meeting of railroad surgeons in Texarkana this past December, "First make a correct diagnosis, and then institute proper treatment." In the modern concept of the treatment of diseases of the paranasal sinuses, it is very essential to know whether the condition is a manifestation of allergy, an inflammatory process, endocrine dysfunction or a combination of them, in order to arrive at a correct diagnosis, and this, gentlemen, many times is a very hard task, for it requires much painstaking care and persistency. Nasal manifestations of allergy have become extremely important to the rhinologist, for those which occur in the upper respiratory tract are the most frequently seen. A detailed clinical as well as family history is very essential, careful examination of the nose with especial reference to posterior as well as anterior rhinoscopy, color of mucous membrane, its thickness, size appearance of the turbinates, complete blood picture, cytologic study of several nasal smears, roentgenologic study of sinuses and finally histologic examination of tissues removed from sinuses and nose.

It has been proven that in the true allergic hyperesthetic and vasomotor rhinitis cases smears made from the nasal secretion will show a marked predominance of eosinophils in proportion to neutrophils. There is a positive family history of some form of allergy. The mucous membrane lining the nasal cavities is pale and watery. It is just such cases as these that, when operated upon without a thought of making a proper diagnosis, and removing the cause, give sinus surgery its black eye. You read of the "Failure of surgery in nasal sinusitis when the title should be 'Failure of surgery in vaso-motor-rhinitis'."

Operating upon such cases, unless there is pus or mechanical obstruction present, has passed, just as the giving of a brisk purgative the night before an abdominal operation.

The endocrines also use the nose as a mirror to reflect dysfunctions. The mucous membrane is pale and water-logged, there is increased lacrimation of the eyes and a puffiness under the lower lids. Usually these cases are of the hypothyroid type with a B. M. R. of minus. 10-25, and there is usually an associated ovarian, adrenal and pituitary deficiency. The increased lacrimation and water-logging of the mucous membrane is due to a stimulation of the vasodilators, which are under the control of the adrenals, the adrenals in turn being stimulated by impulses through the autonomic nervous system. Adrenal imbalance is also shown in the low blood pressure, and muscular exhaustion upon very little exertion. The palms of the hands are cold and moist. Ovarian deficiency manifests itself in obesity, broad flat hips, with girdle of fat, scanty and painful menses, and at this period the nasal symptoms are always worse. Just as there is water-logging of the nasal mucous membrane at this time, which may cause nasal polypi by the sagging or prolapse of the edematous mucosa, the same process may even be a causative factor in the formation of uterine polypi. When these endocrine imbalances are cleared up, the nasal polypi diminish, and the pale water-logged membrane is changed to a pink healthy tissue.

In the true uncomplicated sinus infections which follow influenza, prolonged head colds and the like, there is no history of allergic manifestations, personal or familiar, nasal smears show the neutrophils predominate, an x-ray of the nasal sinuses reveals cloudy sinuses usually unilateral. It is this type of case that needs ventilation and drainage, and for the defense of which I plead today. It is the cases of sinus infection per se that need operative procedure before the disease gets chronic, and the mucous membranes lining these cavities lose their powers of resistance, for each recurrent infection tends toward chronicity and after so long a time the bone becomes involved, osteitis and osteomyelitis results, and now these cases even, cannot be promised a cure by surgical procedure. This is the type of sinus that is the true, "once a sinus—always a sinus," but could have been cured had proper surgery been instituted early in the disease.

So in closing, gentlemen, may I suggest that you study these cases carefully, each of its own type, for they are as different as the colors of the rainbow, and refer those which are amenable to surgery before the sun has begun to set.

CONCLUSION

1. Sinus disease is curable.
2. An acute sinus infection is much easier to cure than a chronic one.
3. An infection of the sinuses per se usually is unilateral; allergic sinusitis bilateral.
4. Allergy is no contra-indication for ventilation and drainage. Allergy is a contra-indication for radical surgery.
5. Surgery has a definite place in sinus disease.
6. Pneumatization in a sinus arrested by infection can only be re-established by ventilation and drainage.

DISCUSSION

DR. E. LeROY WILKINS (Clarksdale): Only a few years ago our idea was that there was nothing to do but operate. To me the most pathetic case that comes to my office is some person who has a superoperated nose. He still has just as much trouble, or even more trouble than before the operation. The doctor has told you that those cases are allergic, and should be operated upon only in exceptional cases. Unfortunately what he says is too true; too many people think that once a sinus always a sinus; they may have only maxillary sinusitis and because they think that they must not be operated upon, will go on hurting, and then when the time does come it is too late. There is always some sinus involved in every acute head cold lasting more than a day or two. The sinuses are in some instances involved and it is our business to treat them early and prevent a chronic sinus infection. A chronic sinus infection is hard to cure, it is almost impossible to cure, but if we treat it as best we can and get the cooperation of our patient early, we will have to do very few radical sinus operations. Occasionally we will have to drain the maxillary —much more rarely the ethmoids and sphenoids. The process of draining the maxillary is very simple, but the drainage with a minor amount of surgery is my idea of the thing to do. We have been accused many, many times of operating too much. Those of us who did radical surgery some six or eight years ago do not do it now, and they are the type I speak of. Unfortunately most of those people have gone to Dr. Hoye or Dr. Mitchell and we are not seeing as many of those superoperated cases.

I want to thank Dr. Payne for his excellent paper. It gives us food for thought, but we must ourselves be careful and not lay ourselves liable to that criticism which we get when they say "once a sinus always a sinus."

◆

MISSISSIPPI STATE MEDICAL ASSOCIATION

Organized 1867

OFFICERS

President	W. L. Little, M.D., Wesson
President-Elect	Joseph E. Green, M.D., Laurel
Vice-Presidents	F. S. Hill, M.D., Grenada Lawrence W. Long, M.D., Jackson R. F. Ratcliff, M.D., Lucedale
Historian	Leon S. Lippincott, M.D., Vicksburg
Speaker	J. P. Wall, M.D., Jackson
Secretary	T. M. Dye, M.D., Clarksdale
Treasurer	E. LeRoy Wilkins, M.D., Clarksdale

COUNCIL

First District	J. W. Lucas, M.D., Moorhead
Second District	L. L. Minor, M.D., Rt. 4, Memphis, Tenn.
Third District	R. B. Caldwell, M.D., Baldwyn
Fourth District	T. J. Brown, M.D., Grenada
Fifth District	W. H. Watson, M.D., Brandon
Sixth District	H. Lowry Rush, M.D., Meridian
Seventh District	J. Gould Gardner, M.D., Columbia
Eighth District	W. H. Frizell, M.D., Brookhaven
Ninth District	D. J. Williams, M.D.. Gulfport

COMMITTEES

Constitution and By-Laws: W. H. Frizell, M.D., Brookhaven; J. Rice Williams, M.D., Houston; W. W. Crawford, M.D., Hattiesburg.

Budget and Finance: J. B. Howell, M.D., Canton; B. S. Guyton, M.D., Oxford; D. C. Montgomery, M.D., Greenville.

Public Policy and Legislation: W. H. Anderson, M.D., Booneville; F. J. Underwood, M.D., Jackson; Henry Boswell, M.D., Sanatorium.

Publication: Leon S. Lippincott, M.D., Vicksburg; D. W. Jones, M.D., Jackson; G. S. Bryan, M.D., Amory.

Program: T. M. Dye, M.D., Clarksdale.

Isolation Hospitals: H. F. Garrison, M.D., Jackson; J. Gould Gardner, M.D., Columbia; H. C. Ricks, M.D., Jackson; W. H. Anderson, M.D., Booneville; John Darrington, M.D., Yazoo City.

CHAIRMAN OF SECTIONS

Medicine	L. J Clark, M.D., Vicksburg
Surgery	J. Gould Gardner, M.D., Columbia
Hygiene and Public Health	H. C. Ricks, M.D., Jackson
Eye, Ear, Nose and Throat	Van Dye Hagaman, Jackson

ADVISORY TO WOMAN'S AUXILIARY

W. L. Little, M.D.,	Wesson	Henry Boswell, M.D.,	Sanatorium
Joseph E. Green, M.D.,	Laurel	T. M. Dye, M.D.,	Clarksdale
T. J. Brown, M.D.,	Grenada		

Mississippi State Medical Association

Leon S Lippincott, M.D., ...Editor
D. W. Jones, M.D., ...Associate Editor
G. S. Bryan, M.D., ...Associate Editor

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

EDITORIALS

FROM OUR PRESIDENT

At this opportune time, just before the April meeting of the Mississippi State Medical Association, it is well to present to the association the marked advance in membership. On February 20, 1938, there were over two hundred paid members more than on the same date of 1937. The South Mississippi Medical Society has more than doubled its membership while others showed a substantian increase.

With such a showing we naturally expect a large attendance at the annual meeting to be held in Jackson, April 19-21. The doctors of the state will be given the opportunity to hear specialists in the various fields of the profession who rank among the first in the nation and in our state. Dr. H. F. Garrison, Sr., general chairman of all committees, announces Dr. James S. McLester, of Birmingham, Ala., as speaker for the open program on Tuesday evening. The general public is invited for this program. Dr. McLester has been president of the American and Southern Medical Associations and is one of our most brilliant men and fluent speakers. The subject for this lecture is, "The Cause and Effects of Hypertension."

Jackson will give us a royal reception and preparations are already under way for many social functions. Hotel accomodations are ample and may be obtained at reasonable prices. Come, bring your wife and lets enjoy a vacation in our Capitol City that is worth while.

Wesson, W. L. Little,
February 8, 1938. President.

MISSISSIPPI STATE MEDICAL ASSOCIATION

Evening Session
"PRESIDENT'S NIGHT"
BANQUET HALL
ROBERT E. LEE HOTEL
TUESDAY, APRIL 19, 1938

(THE PUBLIC IS CORDIALLY INVITED)

1. Invocation.—Dr. W. A. Hewitt, Pastor, First Baptist Church, Jackson.

2. Address of Welcome:

On Behalf of the City of Jackson.—Mayor Walter A. Scott.

On Behalf of the Central Medical Society. —Dr. Frank Hagaman, President-Elect, Central Medical Society, Jackson.

3. Response to the Addresses of Welcome.—Dr. W. H. Anderson, Editor, The Mississippi Doctor, Booneville.

4. In Memoriam.—By the Secretary.

5. President's Address: "History of Medicine and Its Advancements."—Dr. W. L. Little, President, Mississippi State Medical Association, Wesson.

6. Ewing Fox Howard: Oration—"Causes and Effects of Hypertension."—Dr. James S. McLester, Birmingham, Ala.

* * * *

PROGRAM OF ENTERTAINMENT FOR THE MEMBERS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION AND THE WOMAN'S AUXILIARY.

1. **"Open House."**—Honoring: Officers of the Mississippi State Medical Association and officers of the Womans Auxiliary.

Residence of Dr. and Mrs. Harvey F. Garrison, 748 Gillespie Place. (All members of the Mississippi State Medical Association and the Woman's Auxiliary are cordially invited).

Tuesday afternoon.—5:00—7:00 p. m.

2. **Presidential Ball.**—Robert E. Lee Roof. Tuesday night, 10:00 p. m. to 2:00 a. m. Grand March at 10:15 p. m. Floor Show (7 acts) 10:45 p. m. Dr. Lawrence W. Long, Grand Marshall.

3. **Garden Party Reception."**—Residence of Dr. and Mrs. H. R. Shands, 607 North State Street. Wednesday, 7:30 p. m. (All members of the Mississippi State Medical Association and the Woman's Auxiliary are cordially invited).

4. Scientific Exhibits open at all times.

Award made for the best exhibit, Thursday, at 12 Noon.

5. Skeet Shooting Contests—Tuesday and Wednesday Afternoons; Rifle Shooting Contests—Same; Fishing Contests—Same; Golf Contests—Same.

Award of prizes to contest winners Thursday at 12 Noon.

6. Round Table Luncheon Daily. Rooms and Guest Speakers will be announced on the Bulletin Board. Tickets procured at Registration Desk, $1.00 each.

7. Headquarters for General Committees on Arrangements, in Room 3 "C", Third Floor, ROBERT E. LEE HOTEL.

8. Registration for all entertainment at registration desk in Exhibitors Hall, Booth 12.

9. Hotel Headquarters for the Mississippi State Medical Association, ROBERT E. LEE HOTEL. Rates as quoted in the Mississippi Doctor ------$4.00 per day, (one in room, or two in room for same price.")

HARVEY F. GARRISON, General
Chairman Entertainment Committee

MEETING OF SECRETARIES

As last year during the meeting of the Mississippi State Medical Association in Jackson, April 19 - 21, there will be a luncheon meeting of the secretaries of the component socities to discuss the problems incident to the proper functioning of the societies.

Dr. F. M. Acree, Secretary of the Delta Medical Society, Greenville, is in charge of the arrangements and will be glad to receive advance suggestions from other secretaries. All secretaries are requested to notify Dr. Acree of their intention to attend.

* * *

STATE ASSOCIATION MEMBERSHIP

Society	Members Mar. 1, 1938	Members 1937	White Physicians in Jurisdiction	Per Cent Members, 1938
Franklin County	6	6	6	100.0
Pike County	25	24	26	96.2
Harrison	48	40	56	85.7
Wilkinson County	5	5	6	83.3
Tate County	9	10	11	81.8
Central	170	160	212	80.2
South Mississippi	98	65	133	73.7
Tri-County	32	32	45	71.1
Clarksdale and Six Counties	55	56	79	69.6
Delta	102	94	157	65.0
Adams County	14	16	22	63.6
North Mississippi	55	64	87	63.2
Northeast Mississippi	123	144	201	61.2
Winona District	48	49	79	60.8
Amite County	6	8	10	60.0
Issaquena-Sharkey-Warren	34	38	57	59.7
East Mississippi	49	85	95	51.6
Jefferson County	4	4	8	50.0
Hancock County	3	4	8	37.5
Clarkyne-Wayne	5	7	19	26.3
Claiborne County	0	4	7	00.0
DeSoto County	0	11	14	00.0
George County	0	5	5	00.0
Jackson County	0	9	11	00.0
Totals	891	940	1,354	65.8
Last year, as of February 20, the figures were	777	903	1,367	56.8

PROGRAM—NINTH ANNUAL MEETING
Mississippi State Hospital Association
OFFICERS—1937-1938

President ....A. Street, M.D., Vicksburg
Vice-President ....J. P. Wall, M.D., Jackson
Secretary-Treasurer ....
............Leon S. Lippincott, M.D., Vicksburg

BOARD OF DIRECTORS

A. Street, M.D., Vicksburg; J. P. Wall, M.D., Jackson, Leon S. Lippincott, M.D., Vicksburg; J. Gould Gardner, M.D., Columbia, A. M. McCarthy, M.D., Electric Mills.

All members of the Mississippi State Medical Association, their ladies and guests, are cordially invited to attend all sessions and the banquet.

Monday Morning, April 18, 1938

CONVENTION HALL—Robert E. Lee Hotel

8:00 a. m.—Registration, Lobby, Robert E. Lee Hotel.

9:00 a. m.—Call to order by the President, Dr. A. Street, Vicksburg.

Invocation
Roll Call
Reading of Minutes of last meeting
President's Address
Report of Board of Directors
Report of Secretary
Report of Treasurer
Announcements and Appointments of Committees
Introduction of Guests
Unfinished business
Reports of Committes—Each to be followed by Round Table Discussion:

1. Constitution and Rules.—Dr. J. Rice Williams, Houston Hospital, Houston, Chairman.

Discussion to be opened by Dr. T. M. Dye, Clarksdale Hospital, Clarksdale, and Dr. W. H. Frizell, King's Daughters Hospital, Brookhaven.

2. Legislation.—Dr. V. B. Philpot, Houston Hospital, Houston, Chairman.

Discussion to be opened by Dr. R. B. Caldwell, Baldwyn Hospital, Baldwyn; Dr. R. J. Field, Field Memorial Hospital, Centreville; Dr. L. W. Long, Jackson; Dr. E. R. Nobles, Rosedale, and Dr. Robert W. Smith, King's Daughters Hospital, Canton.

3. Membership.—Dr. W. H. Brandon, Clarksdale, Chairman.

Discussion to be opened by Dr. G. E. Adkins, Jackson Infirmary, Jackson, and Dr. E. C. Parker, Gulfport.

4. Charity Hospitals.—Dr. Edley H. Jones, Vicksburg, Chairman.

Discussion to be opened by Dr. Louis M. Magee, Natchez Charity Hospital, Natchez, and Mrs. Maude E. Varnado, Laurel General Hospital, Laurel.

5. Mental Hospitals.—Dr. C. D. Mitchell,

Mississippi State Hospital, Whitfield, Chairman.

Discussion to be opened by Dr. J. S. Hickman, East Mississippi State Hospital, Meridian, and Dr. F. G. Riley, Dr. F. G. Riley's Hospital, Meridian.

6. Public and Community Relations.—Dr. Henry Boswell, Sanatorium, Chairman.

Discussion to be opened by Dr. George A. Brown, Water Valley Hospital, Water Valley, and Dr. R. M. Flynt, Newton Infirmary, Newton.

7. Minimum Standards.—Dr. H. Lowry Rush, Rush's Infirmary, Meridian, Chairman.

Discussion to be opened by Dr. J. C. Culley, Oxford Hospital, Oxford; Mrs. Karenza Gilfoy, Mississippi Baptist Hospital, Jackson; Dr. A. B. Harvey, Tylertown Hospital, Tylertown, and Miss Mary H. Trigg, Greenwood Leflore Hospital, Greenwood.

8. Nurses and Nursing.—Miss Mary E. Dorsey, R.N., King's Daughters Hospital, Greenville, Chairman.

Discussion to be opened by Dr. I. C. Knox, Vicksburg Hospital, Vicksburg; Mr. H. Ogden, Methodist Hospital, Hattiesburg; and Mrs. Sam Owen, George C. Hixon Memorial Hospital, Electric Mills.

9. Publication.—Dr. Leon S. Lippincott, Vicksburg Sanitarium, Vicksburg Chairman.

Discussion to be opened by Dr. J. M. Acker, Jr., Aberdeen and Dr. Felix J. Underwood, Jackson.

10. Fixed Periodic Payments for Hospital Services.—Dr. H. A. Gamble, Greenville, Chairman.

Discussion to be opened by Dr. G. Lamar Arrington, Meridian; Dr. W. W. Crawford, South Mississippi Infirmary, Hattiesburg and Dr. B. B. Martin, Vicksburg Infirmary, Vicksburg.

11. Hospital Taxation.—Dr. B. B. Martin, Jr., Vicksburg Infirmary, Vicksburg, Chairman.

Discussion to be opened by Dr. C. H. Harrison, Philadelphia Hospital, Philadelphia; Dr. J. R. Hill, Corinth, and Dr. Thomas Wolford, Columbus Hospital, Columbus.

12. National Hospital Day.—Dr. F. B. Long, Oktibbeha Hospital, Starkville, Chairman.

Discussion to be opened by Dr. I. P. Carr, Clarksdale; Dr. F. S. Hill, Grenada Hospital, Grenada and Dr. T. E. Ross, Methodist Hospital, Hattiesburg.

13. Hospital Records.—Dr. W. H. Parsons, Vicksburg Hospital, Vicksburg, Chairman.

Discussion to be opened by Dr. P. L. Fite, Fite Hospital, Columbus; Dr. J. E. Powell, Charleston; Miss Julia Stout, Rosedale Bolivar County Hospital, Rosedale, and Dr. W. H. Sutherland, Northeast Mississippi Hospital, Booneville.

14. Hospital Accounting.—Dr. G. D. Stanley, King's Daughters Hospital, Greenville, Chairman.

Discussion to be opened by Dr. W. W. Hall, Jr., Shelby, Mrs. J. Oridge, R.N., Holmes County Community Hospital, Lexington, and Mr. C. F. Theobald, Biloxi Hospital, Biloxi.

15. Hospital Staff Rules and Regulations.—Dr. Gilruth Darrington, King's Daughters Hospital, Yazoo City, Chairman.

Discussion to be opened by Dr. E. W. Holmes, Winona Infirmary, Winona, and Dr. L. B. Morris, Macon Hospital, Macon.

16. Approved Merchandising. — Dr. J. K. Avent, Grenada General Hospital, Grenada, Chairman.

Discussion to be opened by Dr. L. W. Brock, McComb Infirmary, McComb, and Mr. B. T. Whitfield, Corinth Hospital, Corinth.

17. Child Health Day.—Dr. W. H. Anderson, Booneville, Chairman.

Discussion to be opened by Dr. L. B. Austin, Rosedale, and Dr. D. B. Stevenson, City Hospital, Lumberton.

New Business

Reports of Special Committees

Report of Nominating Committee and Election of Officers

Recess for Lunch.

Monday, April 18, 1938—2:00 p. m.
CONVENTION HALL—Robert E. Lee Hotel
Dr. A. Street, President, Presiding

1. Will Group Hospitalization Answer the Present Day Demand for Socialized Hospital Service?—Dr. A. C. Jackson, President, Alabama Hospital Association, Jasper, Alabama.

2. The Hospital Laboratory.—Dr. A. J. Hockett, President, Louisiana State Hospital Association, New Orleans, Louisiana.

3. Proposed Uniform By-Laws for State and Provincial Hospital Associations.—Graham L. Davis, Director, Hospital and Orphan Sections, The Duke Endowment, Charlotte, North Carolina.

4. The Hospital and Its Service to the Community.—Robert Emery Neff, President, American Hospital Association, Iowa City, Iowa.

Monday Evening, April 18, 1937—6:45 p. m.
BANQUET—CONVENTION HALL
Robert E. Lee Hotel
Dr. J. P. Wall, President-Elect, Jackson,
Toastmaster
ADDRESS

Hospital and Medical Relations in the Care of the Sick.—Robert Emery Neff, President, American Hospital Association, Iowa City, Iowa.

Presentation of Certificates of Compliance with the Minimum Standards of the Mississippi State Hospital Association.—Dr. H. Lowry Rush, Chairman, Committee on Minimum Standards, Meridian.

Presentation of Officers for 1938-1939.—Dr. A. Street, President, Vicksburg.

RESOLUTIONS

Whereas, the Mississippi State Hospital Association did enjoy the fellowship, cooperation, the privileges and the benefits of meeting in conjunction with the Mississippi State Medical Association, and

Whereas, it is the belief of this Association that such meetings are mutually valuable in solving many problems, which, especially in Mississippi, are common to hospitals and the practice of medicine;

Be it, therefore,

Resolved, that the Mississippi State Hospital Association does hereby extend to the Mississippi State Medical Association its thanks and appreciation for the courtesies of this valuable contact and pledges to the Mississippi State Medical Association its continued loyalty and best efforts to improve the hospitals of the state, always keeping in mind the best interests of the patient, the doctor, and the nurse.

J. Rice Williams
Henry Boswell,
Committee.

Unanimously adopted, May 10, 1937.

MISSISSIPPI STATE PEDIATRIC SOCIETY MEETING

The annual meeting of the Mississippi State Pediatric Society is to be held at the Edwards Hotel, Jackson, on the afternoon of Monday, April 18. The purpose of this society is to promote child welfare in the state of Mississippi. We members of the society felt that this could best be carried out by having some of the outstanding men in the pediatric field to appear on our programs yearly, and we invite and urge all members of the Mississippi State Medical Association to attend these meetings. In arranging our program, we have not only selected the biggest men in pediatrics, but have also requested them to speak on subjects which would be of benefit to the general practitioner, who, after all, cares for most of the pediatric problems in the State of Mississippi.

Those who attended our meeting last year seemed very much pleased and benefited by the program, and we have tried to carry this same feeling in making our program this year and, as president, I urge each and every member of the Mississippi State Medical Association to attend our meeting on the above date.

Below is an outline of the program this year:

Banquet Hall—Edwards Hotel—Jackson

Monday, April 18, 1938,—2:00 p. m.

1. Management of Pneumonia in Childhood.—Stanley Gibson, Associate Professor of Pediatrics, Northwestern University Medical School, Chicago, Illinois.
2. An Evaluation of Our Methods of Protection Against Certain of the Infectious Diseases.—M. Hines Roberts, Associate Professor of Pediatrics, Emory University, School of Medicine, Atlanta, Georgia.
3. The Immunization Problem in Mississippi.—Felix J. Underwood, State Health Officer, Jackson, Miss.
4. The Endocrines as Related to Children.—Horton Casparis, Professor of Pediatrics, Vanderbilt University, School of Medicine, Nashville, Tenn.

Fellowship and Refreshment Hour.—5:30 to 6:30 p. m.

Banquet Promptly at 7:00 p. m.

Guest Speaker—The Diagnosis of Heart Disease in Childhood.—Stanley Gibson, Associate Professor of Pediatrics, Northwestern University Medical School, Chicago, Ill.

Banquet Tickets, $1.00—all who expect to attend this meeting and banquet are earnestly requested to write: Dr. Harvey F. Garrison, Jr., Jackson, immediately upon receipt of this program, **Requesting Reservations for the Banquet**—since it is absolutely necessary that we know the number who will attend in order that we may notify the hotel for banquet reservations.

Vicksburg, Guy C. Jarratt,
March 10, 1938. President.

ELECTION OF DELEGATE TO AMERIICAN HOSPITAL ASSOCIATION

On Monday, April 18, at Jackson, the institutional and personal members of the American Hospital Association in Mississippi will elect a delegate and alternate to represent the state in the House of Delebates of the Association this year.

Under the By-Laws of the American Hospital Association, adopted at the last convention, a House of Delegates consisting of 100 members was provided, of which 72 delegates and alternates are to be elected by the personal and institutional members of the Association in each state and territory of the United States and in each province of Canada. Mississippi, according to membership in the Association is entitled to one delegate and one alternate.

The Board of Trustees of the American Hospital Association has appointed a committee to conduct the election as follows: Leon S. Lippincott, M.D., Vicksburg, chairman; J. Gould Gardner, M.D., Columbia, secretary; and Miss Helen Branham, R.N.; North Mississippi Community Hospital, Tupelo.

The following hospitals and personal members are entitled to vote: Field Memorial Hospital, Columbia Clinic Hospital, Columbus Hospital, Fite Hospital, McRae Hospital, George C. Hixon Memorial Hospital, King's Daughters Hospital, Greenville, King's Daughters Hospital, Gulfport, South Mississippi Infirmary, Houston Hospital, Anderson Infirmary, Dr. F. G. Riley's Hospital, Rush's Infirmary, Natchez Sanatorium, Newton Infirmary, Bramlett Hospital, Oktibbeha Hospital, Vicksburg Sanitarium, and Winona Infirmary, and personal members, Mrs. Maud E. Varnado, R.N., Laurel, James M. Braxton, Meridian, F. B. Long, M.D., Starkville, and Helen Branham, R.N., Tupelo.

Delegates are elected for a term of two years.

GROUP HOSPITALIZATION PROfRESSES IN 1937

Under the above caption, **The Bulletin of the Hospital Association of Pennsylvania** of January, 1938, presents the progress and success of several of the group hospitalization plans in various parts of the United States and shows that more than 942,000 persons are protected against unexpected hospital expense in only seven of many such organizations now in operation.

New York City: The Associated Hospital Service of New York leads the country's hospitalization plans with nearly 600,000 subscribers. Enrollment is done both by groups of employees and by individual subscriptions, the latter methods costing slightly more. Services included are: 21 days in a semi-private room, use of operating room, delivery room, and nursery for newborn children, ordinary x-ray and laboratory examinations, routine drugs and medicines, and several other convenient features.

Minnesota: The Minnesota Hospital Service Association is the second largest plan in the country. Present enrollment is 130,000 people of which 65,000 are employed subscribers. The remainder are dependents. The Association at present cares for an average of 225 patients each day. Its approval by the medical profession is evidenced by the fact that 500 doctors are members of the plan. The Association offers 21 days of hospital care the first year as a member, 24 days the second year, and 27 days the third year. In addition it provides general nursing care, anesthesia, drugs and medicines, surgical dressings, and makes special allowances for laboratory tests, x-ray, and special services.

Cleveland: The Cleveland Hospital Service has 69,500 employed subscribers and 11,000 family subscribers. It is endorsed by the Cleveland Academy of Medicine. The plan offers hospitalization for groups of employees and an additional plan permits enrollment of members of their families.

Rochester: The Rochester Hospital Service Corporation had an enrollment of 45,565 subscribers and 39,117 dependents on Dec. 1. The Corporation which has been operating successfully for two and one-half years, hopes to reach an enrollment of 100,000 for its third anniversary in June. Over the past 30 months the Corporation has paid to hospitals $339,978.69 for subscribers and dependents.

North Carolina: The Hospital Saving Association of North Carolina had a record breaking month in November when 4375 new members in 125 new groups were enrolled. A total enrollment of 44,581 members was announced Dec. 1.

Chicago: Chicago's Plan for Hospital Care entered its second year of operation Jan. 1. More than 1000 members of the 25,000 enrolled were hospitalized during the year.

Dallas: One of the oldest of the better known plans started at the Baylor University Hospital in 1929. Originally adopted to assist school teachers in Dallas, the plan has grown to a membership of 28,000 and now includes commercial groups. Surviving many obstacles in the form of legislation and surpassing many fly-by-night companies which temporarily offered competition, the plan has hospitalized nearly 10,000 people and paid half a million dollars to hospitals in Dallas.

The plan offered to the people of Mississippi through the Hospital Service Corporation of Mississippi, operated by the Mississippi State Hospital Association, combines the features proved to be best for the people in other plans. With the indigent of the state cared for in state charity hospitals and hospitals throughout the state approved for the care of charity patients and with people of low income given hospitalization through insurance at a cost that can be paid, it is believed Mississippi has taken a long step to meet any threat of so-called "state medicine."

STATE BOARD OF HEALTH

"The Family Doctor's Opportunity in Community Health Service" is the special objective for National Negro Health Week to be celebrated this year from April 3-10. A period when progress is viewed, new plans made, and efforts rededicated to improving the health of the colored people of the state each year, Negro Health Week serves as a reminder that the need is still great among Mississippi Negroes for education about the simplest facts of healthy living.

The three points to be stressed in Mississippi's Negro Health Week Program this year are: small pox vaccination; infant and child care; and sanitation, including pure water supplies and sanitary disposal of sewage.

The opportunities for family doctors to assist in this program are many and varied, especially with reference to infant and child care. In view of the national slogan, "The Family Doctor's Opportunity in Community Health Service," it is hoped and believed that the physicians of Mississippi will be especially cooperative in this movement this year.

Miss Ruth Cushman, Regional Nurse Consultant for the Children's Bureau, Washington, D. C., was a recent visitor to the State Board of Health.

Amite County has joined thirty-one other counties in Mississippi who now enjoy the health protection afforded by a full-time health department. This new department started functioning February 1, and is directed by Dr. T. B. McCollum, native Mississippian, who received his B. S. from the University of Mississippi, his M.D. from the University of Arkansas, and took his interneship at Mercy Hospital, Des Moines, Iowa.

The health office in Amite County will be located at Liberty, the county seat.

Dr. Emma A. Winslow, statistical consultant for the Children's Bureau, Washington, D. C., conferred with State Board of Health officials on February 3 and 4. A specialist in maternal and child health, she discussed recent statistical trends in this field with Dr. Felix J. Underwood and Dr. J. A. Milne, Director of Maternal and Child Health.

On February 28, a committee meeting to suggest plans for the observances of Child Health Day in Mississippi was called by Dr. J. A. Milne, Director of Maternal and Child Health, in the State Board of Health Library.

With the slogan, "Speed children on the road to health," a blanket plan of the celebration, the objectives, in general, are that every community make full use of its resources in order to insure to children safe birth, normal growth, and protection against disease and accident in their progress from infancy to maturity.

It was suggested that Play Days, wherein different schools come together just for the fun of playing rather than in a spirit of interschool rivalry, be one of the features in this year's celebration. Also prominent in program plans is the stimulation of health plays to be written and staged by school children. Present were: Dr. P. H. Easom, State Agent for Negro School, State Department of Education, Jackson; Miss Ruth Wallace, Supervisor of Home Economics, State Department of Education, Jackson; Mrs. L. J. Jackson, Executive Secretary, Mississippi Congress of Parents and Teachers, Jackson; Miss Elizabeth Ann Taylor, Physical Education Instructor, Central High School, Jackson; Mrs. M. L. Legler, President, City Council, Mississippi Congress of Parents and Teachers, Jackson; Miss Jean McGillivray, Secretary, YWCA, Jackson; Mrs. Vera Barnett, State Home Economist, WPA, Jackson; Dr. Felix J. Underwood, Executive officer, Dr. J. A. Milne, Director of Maternal and Child Health, Miss Mary D. Osborne, Supervisor of Public Health Nursing, Miss Gladys Eyrich, Supervisor of Mouth Health, and Miss Eleanor Hassell, Assistant Supervisor of Health Education, of the State Board of Health.

Award has been made to Dr. G. L. Biles, Sumner, of a scholarship to the Vanderbilt Medical School for a month's scholarship in postgraduate medicine. Dr. Biles began his studies on February 14.

Physicians of Smith, Simpson, Covington, and Rankin Counties had the opportunity of attending a course in pediatrics at the Sanatorium the second week in February. Conducted by Dr. Robert A. Strong, professor of pediatrics, Tulane Medical School, New Orleans, this was one of a series sponsored jointly by the State Medical Association and the State Board of Health.

On February 4, Dr. Felix J. Underwood delivered a lecture to the students nurses at the Baptist Hospital, Jackson, on the "Aims and Activities of the State Board of Health." Student nurses from the Charity Hospital were also present at this lecture.

"Recent Trends in Public Health" was the subject of a talk by Dr. Underwood over radio station WJDX as guest of the Federated Women's Club, February 9. It was also the theme of his address made to the Crystal Springs Floral Club, Crystal Springs, on February 10.

February, significant for its birthdays of great men, is also significant in health matters. Social Hygiene Day and Narcotic Week were observed during February by the State Board of Health, and the attention of the public was drawn to the importance of both through radio talks, newspaper publicity, and other means.

Dr. Underwood attended a special meeting of the Children's Bureau in Washington, D. C., February 13, at which plans were made for enlarging the Bureau's program in protecting the lives of mothers and babies. On this same trip, Dr. Underwood attended a special hearing of the LaFollette-Bulwinkle Bill, designed to provide through the United States Public Health Service funds for the control of syphilis in forty-eight states.

Dr. R. N. Whitfield, Director of Vital Statistics, attended the Congress on Medical Education and Licensure in Chicago, February 14, and 15, as representative of the Mississippi Board of Medical Examiners, of which he is secretary. Dr. Whitfield has represented Mississippi at this Congress on three occasions.

Dr. Underwood was named state judge for the ninth annual Gorgas essay contest by the now deceased Dr. Cary T. Grayson, chairman of the Gorgas Institute board of directors. Judging will be done immediately after the essays are received.

Through the united effort of the county medical society and the county health department, four syphilis clinics are now in operation in Coahoma County. All patients are referred by private physicians.

Washington and Tallahatchie Counties have taken steps to reduce illness and mortality from the "guest imitator," by similar clinic set-ups.

Syphilis control, an acute problem all over the state, is of especial significance in the Delta because of the high percentage of Negro population there. Approximately 30 per cent of Mississippi Negroes are afflicted with the disease.

Dr. H. E. Kleinschmidt of the National Tuberculosis Association, New York, conferred with State Board of Health, Sanatorium, and Mississippi Tuberculosis Association Officials relative to the tuberculosis control program in Mississippi.

On February 22, two out-of-state health workers visited the Mississippi State Board of Health. Dr. James Fesler, of the University of North Carolina, Chapel Hill, North Carolina, discussed with Dr. Underwood the legal basis of public health work; while Dr. M. O. Bousfield, director of Negro health for the Rosenwald Fund, Chicago, conferred with Mississippi's health executive regarding a Negro health program in the state.

To observe a new water softener installed at Inverness by the board of supervisors was the object of a trip on February 23 by Dr. H. C. Ricks, Director of County Health Work, and Mr. H. A. Kroeze, Director of Sanitary Engineering.

On February 17, Dr. H. C. Ricks addressed civic clubs in Itta Bena and Greenwood on the need for syphilis control clinics.

Commendation on the recently revised Record Manual compiled by the State Board of Health has been received from recognized health leaders. Used in all health departments of the state, the manual furnishes uniform guidance in local health work. Under this system, the records of Mississippi's health departments are recognized and approved by national health agencies.

Smallpox cases in Mississippi during the first two months of 1938 totalled 82, according to Dr. A. L. Grey, Director of Preventable Disease Control. The disease appears periodically in Mississippi about every five years, Dr. Gray says, citing previous epidemics of 1920-21, 1925-26, and 1931-32, and in the light of previous statistics it will probably last into 1939.

Dr. Gray urges extensive vaccination as the means to combat the spread of smallpox and asks family physicians to take as many opportunities as possible to protect their patients against the disease.

Many towns and cities in Mississippi are beginning to build malaria out. The division of Malaria Control of the State Board of Health is supervising this work, which is made possible by labor from the WPA and materials from the towns and cities.

About one year ago, the installation of permanent lining for ditches by the use of concrete gutter-type invert was started. This type of drainage eliminates Anopheles mosquito breeding permanently, does not require maintenance, and in addition, improves the general appearance of the area. This work is being highly praised, not only for its health value, but also for the elimination of unsightly areas, the reduction of maintenance cost, and the general improvement of property values. Many town and city officials are giving special recognition to this program. Garden clubs, civic organizations, and physicians generally, as well as private individuals, have been of great aid in the promotion of the work.

The type of work being done in Mississippi has gained national recognition. Mr. J. A. LePrince, Sanitary Engineer Director, U. S. Public Service, in a recent article stated that the work of this nature done in Mississippi should serve as an example to be followed by other regions where malaria is a problem. Lantern slides and lectures regarding the work in Mississippi have been presented before the engineering schools of State College, University of Mississippi, Johns Hopkins University, and other schools.

Malaria control by this method is slow, but it is permanent. In the course of a few years, the reduction in malaria should be noticeable.

H. A. Kroeze, Director of Sanitary Engineering, conducted a series of lectures to the School of Sanitarians, Vanderbilt University, Nashville, Tenn., during February. Mr. Kroeze's subjects covered food sanitation and private and semi-public water supplies. Among those attending these lectures were four county sanitation supervisors from Mississippi.

The State Board of Health's radio program over WJDX during February was as follows:

February 5: Dr. D. V. Galloway, Director of Lauderdale County Health Department, "Our Syphilis Problem and How to Meet It."

February 12: Dr. Felix J. Underwood, "Our

Narcotic Problem."

February 19: Dr. W. L. Little, "Public Health Values as Seen by the President of the State Medical Association."

February 26: Dr. Felix J. Underwood, "Nephritis—Mississippi's Public Enemy No. 2."

Jackson, Felix J. Underwood,
March 4, 1938. Executive Officer.

HOW DO YOU PRONOUNCE THEM?

In a leaflet announcing a new medical dictionary recently received the following pronunciation of a number of common medical words is given:

Abdomen—say ab-do'men, not ab'do-men.
Angina—say an'jin-ah, not an-ji'nah.
Anus—say a'nus, not an'us.
Catalysis—say kat-al'is-is, not kat-al-i'sis.
Diathesis—say di-ath'is-is, not di-ath-e'sis.
Eczema—say ek'ze-mah, not ek-ze'mah.
Larynx—say lar'-inks, not lar'niks.
Neurolysis—say nu-rol'-is-is, not noo-ro-li'sis.
Paresis—say par'-e-sis, not par-e'-sis.
Presentation—say prez-en-ta'-shun, not pre-zen-ta'-shun.
Student—say stu'-dent, not stoo'-dent.
Tumor—say tu'mor, not too'mor.
Gynecology—say jin-e-kol'-o-je, not guy'-ne-kol-o-je.

Possibly some of us could improve our pronunciation of other words often used in our daily work.

LEGISLATIVE TRENDS

Following are certain bills introduced for legislative action in various states and of special interest to the medical profession and hospitals, as reported by the Council on Government Relations of the American Hospital Association under date of January 27, 1938:

Massachusetts

Senate 40.—An act relative to the use of blood for transfusion purposes. Provides that a hospital, institution, clinic, physician, etc., shall take a complete history from a prospective donor for blood transfusion to determine any history that might indicate the presence of syphilis and shall have laboratory examination made before donor's blood is used. At the time of transfusion, duplicate specimens of both the donor's and recipient's blood are to be collected for examination for syphilis. Provision is made for an emergency.

House 123.—Hospitals. Hours of Labor. Relative to hours of labor of women and children in hospitals, nursing or convalescent homes, or similar institutions. This bill would limit the hours of labor to 48 per week. Employer is to keep schedule of hours of employees posted in such manner as required.

House 604.—Physicians and Surgeons. The bill provides that after the removal of any limb or organ, the operating surgeon shall furnish a written statement in explanation to the patient or his nearest friend telling the nature of the operation and his reasons for considering it necessary.

House 605.—Physician and Surgeons. This bill gives to the patient or the nearest friend the right to view any organ or limb removed by a physician and to have a full explanation regarding the necessity for such removal. After the removal of a limb or organ the superintendent, or other person in charge of a hospital, is to take immediate charge of the limb or organ removed and preserve it for a period of at least 6 weeks so that the patient or nearest friend can take advantage of the above. Until it is known whether the patient or nearest friend desires to take advantage of this right, the limb or organ is not to be tampered with. (It would appear that this would delay pathological examination. Also an active surgical service, especially if many limbs or large growths were removed, would require extensive provisions for preservation and storage).

Mississippi

Senate 35.—Indigent Sick. Providing for the treatment and hospitalization of the indigent sick. The bill provides the following appropriations for the fiscal years of 1938 and 1939. For hospitalization in those counties where there is no state charity hospital, $500,000; South Mississippi Charity Hospital, $60,000; Matty Hersee Hospital, $65,000; Jackson Charity Hospital, $65,000; Vicksburg Charity Hospital, $55,000; Natchez Charity Hospital, $55,000.

Senate 131 and House 226.—Hospital Regulation. To regulate the hospital departments of railroads and other industries and to prescribe the method of employment of doctors and providing for hospital benefits. The bill would require that doctors and hospitals operated or designated by railroads and industries, where deductions for services are made from wages of employees, must be approved by the employee and the employee has the right to a full record of his treatment in any such hospital; likewise, that contracts with doctors and hospitals be limited to two years and a report of money collected and disbursed be made to the State.

Senate 141.—Hours of Labor. Amending Section 4653 of the Mississippi Code, 1930, so as to include males and limiting the hours per day to six and number of hours per week to thirty-six and include males and females in all indoor occupations, and to pay a wage scale of not less than forty cents per hour, except domestic servants who shall be paid not less than ten cents per hour, and farmers who plant less than fifty per cent of their acreage in cotton. No other exemptions noted in the bill.

New York

Senate 99 (Same as A. 127). — Syphilis. Pregnant Women. Requires serological blood test for syphilis of pregnant women from sample taken by licensed physician and submitted to "approved laboratory," birth certificate to contain report of such test, and appropriates $15,000.

Senate 100 (Same as A. 363).—Obstetricians. Syphilis. Requires physician attending woman during pregnancy to cause serological test for syphilis to be given prior to birth of child, birth certificate to contain report thereof.

Senate 241 (Same as A. 85).—One Day Rest. Makes compulsory the giving of one day of rest in every calendar week to all watchmen, domestics, janitors, superintendents or managers. No exemptions for charitable institutions noted in the bill.

Assembly 351.—Hospital Employees. Hours. Provides for eight hour day and 48 hour week for all employees in hospitals, and for one day of rest in seven. Applies only to voluntary and proprietary hospitals. Defines "employee" as "any male or female person, whether compensated in any manner or not, performing any work whatsoever, in connection with the operation of any hospital, but **shall not include** administrative officials, medical and lay superintendents, physicians, internes, pathologists, roentgenologists, superintendents of nurses, ambulance drivers and members of religious orders who render services in connection with their religious duties and without pecuniary compensation."

Provides that "eight consecutive hours in any twenty-four hours shall constitute a day's work. No employee of any hospital shall be permitted to work more than eight hours in any day nor more than forty-eight hours in any calendar week. Each employee shall have a minimum of twenty-four consecutive hours of rest in every calendar week."

COPIED

A girlie whose name doesn't matter,
Found that she got fatter and fatter,
But she dieted so well
That she now looks like h----,
And there isn't a place you can patter.

During dinner one day a father spoke to his son—"Sonny," he said, "I want to talk to you after dinner. I want to discuss with you the facts of life."

So after dinner when they went into the other room, the son quietly closed the door behind him and said, "Well, Dad, what is it you would like to know?"

Can't anyone reach the top of the ladder? Yeah, but the top would be a pretty shaky place if it weren't for the little fellows at the bottom to hold it steady.

DIRECTORY AND CALENDAR OF MEDICAL SOCIETIES

Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet; also the names of the officers directing their activities this year should be known.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Seventy-First Annual Session and Thirty-Fifth Annual Session of the House of Delegates, Jackson, April 19, 20, 21.

Adams County Medical Society: W. K. Stowers, Natchez, president; F. S. Dixon, Natchez, secretary. Meets third Tuesday, each month, Natchez, 7:30 p. m.

Amite County Medical Society: W. S. Stewart, Oskya, president; D. H. Thornhill, Crosby, secretary. Meets second Thursday, each month with Wilkinson County Medical Society, Field Memorial Hospital, Centreville.

Central Medical Society: J. T. Rainer, Yazoo City, president; Lawrence W. Long, Jackson, secretary. Meets first Tuesday, each month, Robert E. Lee Hotel Roof, Jackson, 7:00 p. m., except July and August.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. D. House, Sledge, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday of March and second Wednesday of November, Elks Club, Clarksdale, 2 p. m.

Clarke-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Coahoma County Medical Society: William P. Warfield, Clarksdale, president; N. C. Knight Clarksdale, secretary. Meets second Wednesday each month, Alcazar Hotel, Clarksdale, 12 noon.

Coast Counties Medical Society: W. W. Lake, Pass Christian, president; D. L. Hollis, Biloxi, secretary. Meets first Wednesday, each month at night.

Delta Medical Society: E. T. White, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October. Rotates through five counties, 2 p. m.

Desoto County Medical Society: J. M. Wright, Hernando, president; L. L. Minor, Rt. 4, Memphis, secretary. Meets first Monday of January, April, June, October, Hernando, 10 a. m.

East Mississippi Medical Society: C. H. Harrison, Philadelphia, president; Bob A. Cameron, Meridian, secretary.

Franklin County Medical Society: C. A. Everett, Bude, president; L. Costley, Meadville, secretary.

Homochitto Valley Medical Society: Harrison Butler, Liberty, president; H. A. Whittington, Natchez, secretary. Meets January, April, July and October, 2 p. m.

Issaquena-Sharkey-Warren Counties Medical Society: B. B. Martin, Jr., Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday each month, Mississippi State Charity Hospital, Vicksburg, 7 p. m.

Marshall County Medical Society: C. R. Senter, Byhalia, president, Herbert Phillips, Holly Springs, secretary. Meets second Thursday each month, alternating between Byhalia and Holly Springs.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Newton County Medical Society: V. L. Henton, Decatur, president; Dudley Stennis, Newton, secretary.

North Mississippi Medical Society: R. M. Adams, Ripley, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: Dr. R. J. Brown, Iuka, president; A. J. Stacy, Tupelo, secretary. Meets third Tuesday, March, June, September, December.

Pike County Medical Society: E. M. Givens, McComb, president; T. Paul Haney, Jr., McComb, secretary. Meets first Thursday, each month, McComb, 6:30 p. m.

Pontotoc County Medical Society: L. O. Carruth, Tupelo, R.F.D., president; O. F. Carr, Pontotoc, secretary. Meets first Tuesday, each month, Pontotoc.

South Mississippi Medical Society: J. P. Culpepper, Hattiesburg, president; Carlton Temple, Hattiesburg, secretary.

Sunflower County Medical Society: U. S. Wasson, Moorhead, president; H. B. Cottrell, Indianola, secretary.

Tallahatchie County Medical Society: G. Lacy Biles, Sumner, president; G. D. Hightower, Webb, secretary.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday, each month, Senatobia.

Tri-County Medical Society: R. B. Zeller, Hazlehurst, president; J. C. McGuire, Hazlehurst, secretary. Meets June 14, Walthal Hotel, Tylertown; September 13, Riverside Hotel, Monticello; December 13, Whitworth College, Brookhaven, 12:30 p. m.

Webster County Medical Society: E. F. Arnold, Bellefontaine, president H. K. Curry, Eupora, secretary.

Wilkinson County Medical Society: C. E. Catchings, Woodville, president; E. M. Butler, Centreville, secretary. Meets second Thursday, each month, with Amite County Medical Society, Centreville.

Winona District Medical Society: T. J. Brown, Grenada, president; S. B. Caruthers, Grenada, secretary.

ADAMS COUNTY MEDICAL SOCIETY

The Woman's Auxiliary to the Adams County Medical Society entertained the members of the Society in celebration of Doctors Day at the home of Dr. and Mrs. H. M. Smith, Tuesday, March 1, at 7:30 p. m. A delicious spaghetti and chicken supper was served to about 30 guests.

Dr. H. A. Whittington extended to the ladies thanks and appreciation of the Adams County Medical Society. Short addresses were made by Dr. R. D. Sessions, Dr. H. M. Smith, Dr. Louis Magee, Dr. Wallace Smith, Dr. W. K. Stowers, Dr. Edwin Benoist, Mrs. McDonald Watkins, Mrs. Hattie Bauer, and Mrs. J. W. Chisholm.

Dr. James C. Rice has associated with him, Dr. J. J. Melvin, at the Rice Clinic.

Dr. Fred Geisenberger is now associated with the Medical and Surgical Clinic at 405 Franklin St., and is limiting his practice to eye, ear, nose and throat work.

At the meeting of the Homochitto Valley Medical Society in January, Dr. Louis Magee exhibited some interesting films.

Natchez, Lucien S. Gaudet,
March 5, 1938. County Editor.

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY

The seventy-second semi-annual session of the Clarksdale and Six Counties Medical Society was held at Clarksdale, Wednesday, March 23. The program as included in the invitations to this meeting was as follows:

2:00 p. m.—American Legion Hut (West of Court House.)

Call to Order—Reading of Minutes.

New Business—Election of delegates to State Medical Convention.

Other New Business.

Symposium on Tuberculosis

1. Early Diagnosis with Especial Reference to X-Rays.—Wm. D. Hickerson.
2. Childhood Tuberculosis.—H. F. Garrison.
3. Epidemiology of Tuberculosis.—Felix J. Underwood.
4. Clinical and Sanatorium Treatment. — Henry Boswell.
5. Subject to be announced.—J. D. Biles, Jr.

Recess

7:00 p. m.—Alcazar Hotel.

Banquet and Entertainment.

6. Surgical Treatment of Tuberculosis.—

John S. Harter and Duane M. Carr.

Adjournment

Clarksdale, N. C. Knight,
March 17, 1938. Secretary.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

A regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, March 8, and after a supper served at 7 p. m. was called to order by the president, Dr. B. B. Martin, Jr., with eighteen members and five guests present.

Program: Dr. Alston Callahan, Vicksburg, Chairman.

1. Influenza and the Common Cold.—Dr. G. C. Jarratt, Vicksburg. Discussed by Drs. H. H. Johnston, W. P. Robert and F. M. Smith. Dr. Callahan closed.

2. The Management of Some of The Complications of Influenza and the Common Cold.—Dr. Robin Harris, Jackson. Discussed by Drs. E. H. Jones, W. E. Johnson and H. H. Johnston.

Case Report.—Dr. J. L. Hall, Vicksburg.

The Society voted to sponsor a weekly radio program having to do with health. Dr. F. M. Smith, Vicksburg, was appointed chairman of the committee in charge.

The following were elected to honorary membership in the society: Dr. D. F. Davis, Newellton, La.; Dr. T. P. Sparks, Jr., Newellton, Lr.; Dr. J. S. Ewing, Newellton, La.; Dr. A. K. Barrier, Rolling Fork.

The next meeting of the society will be held Tuesday, April 12, and the subject will be "The Streptococcal Diseases." The committee in charge consists of Drs. John H. Dent, Chairman; C. J. Edwards, W. P. Robert, R. A. Street, Jr.

NORTHEAST MISSISSIPPI MEDICAL SOCIETY

The quarterly meeting of the North Mississippi Medical Society was held at University, in the Graduate School Auditorium, Wednesday, February 2, beginning at 1:30 p. m.

The program as announced by Dr. A. H. Little, Oxford, secretary, was as follows:

I. Invocation.

II. Reading of Minutes and Other Business.

III. "Coronary Occlucion, Its Diagnosis and Treatment."—Dr. J. H. Musser, New Orleans, La.

IV. "Some of the Anemias of Childhood"—Dr. Robert A. Strong, New Orleans, La.

V. "The Treatment of Pneumonia."—Dr. J. H. Musser, New Orleans, La.

VI. "Erythroblastic Anemia." — Dr. Robert A. Strong, New Orleans, La.

Dr. R. M. Adams, Ripley, is president.

Oxford, Jan. 26, 1938.

TRI-COUNTY MEDICAL SOCIETY

The quarterly meeting of the Tri-County Medical Society was held at Copiah-Lincoln Junior College, Wesson, Tuesday, March 15.

The program as announced by the secretary, Dr. J. C. McGuire, Hazlehurst, was as follows:

Dinner at 12:15 p. m.

Automobile Injuries—Fender and Bumper.—Dr. R. S. Savage, Brookhaven.

Co-operation of Druggists and Doctors.—Lew Wallace, Executive Secretary, Mississippi State Board of Pharmacy, Laurel.

Diseases of the Thyroid Gland.—Dr. W. C. Chaney, Memphis, Tenn.

Dr. R. B. Zeller, Hazlehurst, is president.

Hazlehurst, March 8, 1938.

WILKINS COUNTY MEDICAL SOCIETY

A course of three lectures on "Syphiology" was presented by Drs. J. DeLaureal and Martin T. Van Studdiford, of Tulane University, before the Wilkinson County Medical Society, Feb. 15, 16 and 17, at the Field Memorial Hospital, Centreville. The course was sponsored by the Mississippi State Medical Association, Tulane University and the Mississippi State Board of Health.

Dr. C. E. Catchings, Woodville, is president of the society and Dr. Edwin M. Butler, Centreville, is secretary.

Woodville, C. E. Catchings,
Feb. 25, 1938. President

INTERPRETING MEDICAL LITERATURE

SURGERY

A. Street, Vicksburg

Peritonitis: Horsley, J. S., Arch. of Surg. 36: 190-224.—Dr. Horsley reviews some of the anatomy and pathology of the peritoneum, quoting from Hertzler and others.

The average area of the peritoneal surface was found to be 3,268 square inches, as compared with average cutaneous surface of 3,436 square inches. In other words, the area of the two surfaces is approximately the same. The old idea that peritoneal absorption occurs by way of stigmas (gaps on peritoneal surface not covered by endothelium), is apparently incorrect, as the stigmas do not seem to exist in the normal peritoneum.

Absorption from the under surface of the diaphragm would be no more rapid than that from any other portion if it were not for the pumping action, the result of respiration. Rest diminishes absorption, and it is easier to put the lower abdominal peritoneum at rest than the upper, because of the continuous motion of the diaphragm.

The action of the Hertzler potential blood vessels in peritonitis is mentioned. These are very small blood vessels with a wall composed of endothelial cells only. They do not contain blood under normal conditions, but probably do contain some plasma and leukocytes. In the presence of inflammation, they dilate and contain blood, giving rise to the reddish-pink appearance of the inflamed peritoneum. The potential blood vessel walls rupture easily with resulting ecchymoses.

The lymphatics of the peritoneum empty into the lymph glands, and not directly into the thoracic duct, as is the case with the lacteals. Therefore, lymphaticostomy is of no value in the treatment of peritonitis.

Aseptic peritoneal injury is followed by a clear, structureless, exudate in a few minutes. In ten minutes, bundles of fibrin have formed and are well developed in a few hours, and there is adult connective tissue covered with endothelium by the sixth or eighth day. Repair of the muscularis and mucosa require several weeks. In septic peritonitis, pink granulation fibrin is associated with good prognosis; whitish fibrin, associated with fluid purulent exudate, with poor prognosis.

In discussing causes of acute septic peritonitis, a series of 1,000 fatal cases, with autopsy, reported by Pflaum, is quoted: Only 7.7% were the result of abortion; 1% followed paracentesis for ascites; 4½% were primary or undetermined; 1% were from typhoid perforation; 4.8% from perforated peptic ulcer; and 22.1% were postoperative general peritonitis, exclusive of those patients having peritonitis before operation.

Bile peritonitis when the result of infected bile, is septic and similar to any other septic peritonitis. When the bile is sterile, the peritonitis is mild and, unless a large pool forms over the liver, it is usually survived.

Liver peritonitis, resulting from leaving autolyzed sterile pieces of liver free in the peritoneum of dogs, has been shown to be rapidly fatal. Clinically, this would mean that surgical procedures, that are liable to leave injured and devitalized fragments of liver in the patient's peritoneal cavity, are dangerous.

The characteristics of primary pneumoccic peritonitis are as follows: Occurs most often in female children. Often diarrhea. Leukocyte count is very high. Intense muscular spasm is frequently absent. There is a tendency to formation of considerable fluid which often accumulates in the region of the umbilious and frequently, spontaneously ruptures through the umbilicus. Treatment of pneumococcic peritonitis is medical during the early stages. If localized abscesses form later, they should be drained surgically.

Gonococcic peritonitis usually is confined to the pelvic region. The treatment is usually medical. If pelvic abscess forms, it can usually be drained by colpotomy.

Cause of death from peritonitis is usually absorption of bacterial toxins and resulting shock. Profound shock may also result from peritoneal irritation, as in open perforation of peptic ulcer. Treatment of septic paritonitis consists of elimination of the local septic point of origin, when such exists, and of drainage of the local site. Drainage of the entire peritoneum is impossible. Prevention of some postoperatively peritonitis can be accomplished. A colostomy, before resection of the bowel, results in improved condition of the part to be resected. Preoperative vaccination of the peritoneum by injection, intraperitoneally, of coli bactragen of Steinberg, has been good in the experience of Coller and Ransom. Other points in treatment, after the peritonitis has developed, are: Fowler position, sulfanilamide when there is streptococcus infection, intravenous fluids, use of duodenal tube in stomach, as suggested by Matas and modified by Wagensteen, and the heat tent to the abdomen, as recommended by Ochsner.

Treatment of appendicitis is discussed. The following routine is used and advised by the author: (1) Operate at any stage as soon as diagnosis is made. (2) Make a McBurney incision. (3) Always remove the appendix. (4) Remove exudate gently by suction and not sponging. (5) Ligate the stump and do not invert. (6) Give the bowel rest, no purgative, no enemas.

In discussing drainage, the author says that a soft rubber tube and one or two cigarette drains of iodoform gauze in rubber dam tube are usually sufficient. The drainage acts beneficially by a stimulating outpouring of lymph and retarding absorption of toxic products near the drain.

A series of 727 cases of acute appendicitis, treated according to the principles above mentioned are reported. The mortality was 0.69%.

Comment

Dr. Horsley's thesis is exceedingly thorough.

It is surprising to know, that in any series of one thousand deaths from peritonitis, that 22.1% were surgical postoperative in patients not having peritonitis before operation. It would be interesting to know in how many of these postoperative peritonitis cases the operation resulting in the peritonitis consisted of resection of the large bowel for malignancy.

Liver peritonitis is important in relation to biliary surgery. In doing cholecystectomy, when dealing with a scarred, thickened, gall bladder, frozen to and buried in the liver, it can frequently not be removed without lacerating liver tissue, and this will result in high operative mortality. Partial cholecystectomy should be resorted to in such cases, paring away the under surface of the gall bladder, leaving the portion which is densely adherent to the liver, and destroying it's mucosa by phenol or some other method.

Symptoms of gonococcus peritonitis are not always confined to the pelvis. The reviewer has observed patients with violent right upper abdominal pain, the result of acute gonorrheal pelvic paritonitis in the stage before formation of pelvic mass.

Cause of death in peritonitis is frequently the absorption of toxins, but sometimes the patient survives the toxic stage and then has to combat physiologic disturbances resulting from the peritonitis. This includes motor disturbances, the result of drainage to the bowel turbances, the result of damage to the bowel wall, or of mechanical obstruction from fibrous absorption and secretion which accompany peritonitis and result in profound derangement of body chemistry and physiology.

The reviewer feels that drainage of infected areas in the peritoneal cavity is more involved than the simple placing of a rubber tube and one or two cigarette drains. The indication for drainage is the presnce in the peritoneal cavity of infected foreign body material. This material usually consists of dead tissue or infected tissue that can be expected to slough. If this foreign body material is confined to a small area, say, one-half inch square, the drainage mentioned would probably suffice, but if the area is larger, it might not be. A pack consisting of a number of rubber dam covered cigarettes, arranged parallel to each other, sufficient for the proximal ends of these drains to cover the entire area which may be expected to develop slough, is much safer. This is the quarantine drain principle advocated by Coffey. It is designed to keep all coils of intestine away from the local contaminated area and, in my practice, has given excellent results.

Vicksburg, March 3, 1938.

EYE, EAR, NOSE AND THROAT

Alston Callahan, Vicksburg

The Treatment of Ocular Syphilis.—Kravitz, D.: American Journal of Ophthalmology, (February) 1938, pp. 176-182.

The importance of a careful general examination in ocular syphilis is stressed and the accepted facts concerning each of the therapeutic drugs are presented.

In late syphilis arsenicals must be used with great caution because their intense action produces a rapidity of healing which may have disadvantages. The fibrotic healing of late ocular syphilis causes much damage to the eyes. The arsphenamines may also cause ocular reactions which are classified in three groups as follows:

1. A true toxic reaction, as shown by a conjunctival hyperemia, chorioretinitis, corneal necrosis, and an exfoliative keratitis associated with an exfoliative dermatitis.

2. Ocular therapeutic shock—the Jarisch-Herxheimer reaction, which may appear as (a) an intensification of an existing lesion, (b) a flare-up of a quiescent lesion, or (c) as the unexpected appearance of an inflammatory process apparently not affected previously.

The Herxheimer reaction is very serious in optic neuritis and optic atrophy because sudden and permanent blindness may result.

3. The third type of reaction is the neuritic or iridic recurrence following insufficient treatment in early syphilis—"recidive" reaction.

Incomplete treatment is extremely dangerous in early syphilis because not only does the germ become resistant to further treatment but, as will be shown later, the natural immunity of the host is destroyed. There is also the danger of the "recidive" reaction. Neuro and ocular complications develop in a larger percentage of these cases than in those in which no treatment was administered at all. In late syphilis, immunity is well established and insufficient treatment at that period merely stimulates further progression of the disease.

Tryparsamide is a pentavalent arsenical which contains about 25 per cent arsenic. It is much less toxic than any other arsenical and the danger of a Herxheimer much less. It has an especial affinity for the nervous system, not possessed by the trivalent arsenicals (arsphenamine or neoarsphenamine), and so is valuable in the treatment of cerebral lues.

Alan Woods' belief that tryparsamide should not be uced in optic atrophy is mentioned but a case is presented in which it was used quite satisfactorily.

Of the newer arsenicals, mapharsen seems to be destined to attain a permanent place among antisyphilitic drugs. According to Astrachan, it is less toxic than neoarsphenamine and is especially important in early cases in which drastic therapy is contraindicated. Latent syphilis seems to be its proper field of use. It should be given concurrently with bismuth and not alternately.

The iodides have been used for hundreds of years, not because of their curative powers, but because in cases of late syphilis, they heal gummatous lesions and relieve pain. They probably help in the destruction of the treponemata by enhancing the penetrative powers of other drugs.

Discussion.—Many points in this paper are corroborated by our own experience. Mississippi has many different eye diseases but more of them are caused by syphilis than any other single factor. Of those cases of syphilitic eye diseases that we see, by far the greatest majority have been treated incompletely. The fault of this does not lie with the physicians but with the negroes who procrastinate about returning for further treatment, and the treponema continues its work unceasingly. These cases respond to treatment even more slowly than late cases in which no treatment has been given.

Even at the charity clinics it is notoriously true that after a few weeks or at most a month or two of treatment the patient fails to return. This paper is very helpful in throwing light on this problem and it should be the effort of every eye physician to insist on treatment being carried out until the patient is cured.

ORTHOPEDICS

Thomas L. Blake, Jackson

Malunited Fractures. Campbell, Willis C., Memphis, Tenn. Surg. Gynec and Obstet. (Feb.) 1938. This is a very good article giving an analysis of a large series of malunited fractures. The locations of these fractures included practically every long bone in the body. The correction of these deformities in an individual problem for each case, as no two fractures are alike and the end result will, therefore, be different in each case. It is necessary to devise a corrective procedure for the mchanical distortion in each case. In young people it is much more important to attempt to obtain anatomical restoration than in adults as future growth and function must always be considered. In young people it is always important to avoid the epiphysis as much as possible, so as to interfere as little as possible with future growth. In adults, especially those past the age of forty, the functional result is the thing to be considered and this is of greater importance than the cosmetic appearance.

There are several reasons for malunion, but the most common is improper reduction and maintenance of this reduction in the early stages of treatment. Many x-rays with very nice results are demonstrated with this article.

Calcaneal Spurs. Steindler, Arthur, and Smith, Albert R., Iowa City: Surg., Gynec. and Obstet. (Mar.) 1938.—The authors discuss the findings and treatment in a series of 79 calcaneal spurs. Contrary to the usual belief, only a very small number of these cases were associated with a gonorrheal infection. In this particular series only two patients gave a positive history of gonorrhea. The usual history of a painful heel was given and x-rays revealed a bony ridge on the plantar surface of the os calsis at the location of the attachment of the plantar fascia. One-half of these cases were given comfort by placing some type of insole in the heels of the shoes with a hole in it over the area of the spur. Simply removing the pressure from the sensitive area was sufficient to give these patients relief. The remaining fifty per cent required more radical treatment. The authors describe an operation in which the os calsis is severed through the mid portion and a small wedge removed. On closing this wedge it brings the posterior surface of the os calsis forward. This elevates the area of sensitiveness, so that weight is not borne on it, giving the patient relief.

This operation is more extensive than the one usually outlined for this procedure and will require more prolonged hospital care incapacitating the patient longer than would otherwise be expected for such a simple condition.

Fractures of the Neck of the Femur. Cleveland, Mather, and Bosworth, David M., New York, N.Y.: Surg., Gynec. and Obstet. (Mar.) 1938.—A series of fifty cases varying in ages from 31 to 90 are herein discussed, the average age of this group being 64½ years. Each patient had a fracture through the neck of the femur. All cases were treated by conservative methods. No case had any type of operative procedure to improve bony contact or stability after reduction. It was found that the average hospital stay was 122 days at an average cost of $5.48 per day, making the hospital bill run $671.50 each. This does not include the fee for the surgeons. The end result in fifty cases followed carefully was that approximately two-thirds of the cases resulted in a nonunion. These findings are in keeping with the usual results obtained in such cases treated by the procedure of manipulation, reduction and application of a double spica cast.

These results are typical of those found in cases where closed methods of treatment are followed. In the past, at its best, only about 52 per cent of solid union was obtained. The report of these cases is another support for the treatment by the internal fixation method. In more than one large series of cases from 75 to 92 per cent of solid bony union has been reported. However, this must be remembered with reference to the internal fixation of fracturs of the neck of the femur. It is not a simple matter to place the Smith-Peterson nail in the desired position unless excellent x-ray facilities are available and proper interpretation of pictures can be made.

However, without a doubt the nailing of these hips is by far the treatment of choice.

Hallux Valgus.—Galland, Walter I. and Jordon, Henry, New York, Surg. Gynec. Obstet. (Jan.) 1938. These authors discuss the excellent results that can be obtained in operative treatment of bunions. The Keller-Brandes operative technique is followed. This particular operation can be used with equal success in bunions and hallux rigidus. This procedure gives very gratifying results. However, the importance of very thorough skin preparation cannot be over emphasized. This is especially aimed at the fungus infections so frequently found on feet.

The Use of Os Purum in Bone Implantations.—Orell, Svante, Stockholm, Sweden, Surg. Gynec. Obstet. (Jan.) 1938. This is an excellent article for those interested in repairing bony defects and doing grafts. The author mentions the most common methods of filling bone cavities and bridging defects making special point to show the difficulties of each. Autogenous grafts are best, but difficult to obtain and the patient is subjected to excessive trauma, frequently sufficient b,getaoin sive trauma, frequently a second incision, a prolonged operating time and frequently sufficient bone is difficult to obtain, or if obtained, it is of improper shape. Dried and boiled bone is difficult for the body to use because the canal system of the bone contains much coagulated and dried up connective tissue. The collagen which has geen converted to glue must first be absorbed by the body before connective tissue can grow into the bone canal system.

To offset the above handicaps the author has prepared bone by a physiochemical method which removes as nearly as possible all the fat, connective tissue and protein foreign to the host, and the calcium substance is made as clean as possible without injuring its mechanical strength. The complicated and time consuming method of preparation consists chiefly of soaking the bone in salt solution, warm sodium hydroxide and in acetone. These remove the blood protein, connective tissue and fat.

Case reports then follow on 49 cases covering the wide range of conditions in which the author has successfully used this bone preparation. Excellent case histories with beautiful x-ray results are presented.

This apparently is a sound method of treatment and should be given a thorough trial in treating similar cases in this country before it is condemned or discarded.

Jackson, Feb. 2, 1938.

Arthrodesis of the Osteoarthritis Hip. — Watson-Jones, R., Liverpool, England, J. A. M. A. (Jan. 22) 1938. This author reports a very interesting series of fifty cases of unilateral arthritis of the hip in which fusion with absolute fixation was advisable. In these cases he made the practice of opening the joint, removing the cartilage and then placing a three flanged nail of the Smith-Peterson type from the head of the femur into the pelvis. Of course, any deformity was corrected before the nail was inserted. A spica cast was then applied and the patient remained in bed for twelve weeks. In some cases it was found that this operation was too extensive and a second stage procedure was then carried out in which the joint was prepared and then in ten to twelve days at a second operation the nail was inserted from the femur to the pelvis. Failure was noted in only three cases. This was explained in one case by the nail being too small and in two cases by the nail being placed in an improper position. In elderly persons where it is not advisable to place them in bed for twelve weeks, ankylosis was obtained simply by manipulating the hip into the desired position and inserting the nail in the same manner as treating a fracture of the neck of the femur, except a much longer nail is used which crosses the hip joint and is firmly fixed into the pelvis. The type of nail used is about 4½ inches to 5½ inches long. This is somewhat larger than the usual flanged nail used in the ordinary hip fracture case.

In cases where arthroplasty is not desired and fixation with stability is preferred, this is an excellent procedure and as the author points out, solid ankylosis practically always takes place, whereas, in the older methods of treatment ankylosis is obtained in only fifty per cent of the cases. In each case the author states that the pain previously suffered was relieved. The relief of pain alone is sufficient to justify this operation.

Simplified Support for Knee Injuries.—Truslow, Walter, Brooklyn. An improved knee dressing for simple injuries and cartilage disorders is described in which an ordinary ace bandage is used. This wrapped in the usual manner from 4½ inches above the knee joint to an equal distance below it, then two layers of sponge rubber about 2 inches wide and 8 inches long are placed one on either side of the patella and the bandage is then re-wrapped so as to hold the sponge rubber in place. In this manner a more snugly fitting support to the knee is applied. This type of dressing with modifications can be applied to other joints.

Jackson, Feb. 3, 1938.

PUBLIC HEALTH

Felix J. Underwood

The Heart in Diphtheria: Leete, H. Mason, The Lancet (Jan. 15) 1938.—This paper deals particularly with the toxic myocardium—its signs and symptoms. It attempts to classify chiefly in a clinical manner the varying degree of myocardial damage with a view to prognosis and management of the cases. This study is based on 4700 cases of faucial diphtheria which included 461 deaths. The material presented are those toxic cases which have survived the first week of illness and which either die around the eleventh day of disease or make a slow recovery.

Following a severe infection of nasopharyngeal type, definite heart signs begin to be noticed about the seventh day. The high pulse rate at first recorded is followed by a characteristic fall. In the most severe cases the fall is rapid to a low bradycardiac level followed by a rapid rise to a rate a little less than before the fall. Most of the cardiotoxic deaths take place within the bradycardiac phase. A pulse-rate of less than 50 is dangerous; of less than 40 is usually fatal. As the pulse-rate falls, so does the blood-pressure which is a reversal of the physiological rule that the lower the blood pressure the faster the pulse-rate. If the bradycardiac stage is passed, the outlook improves with the rising rate, though a second tachycardia may be ominous if associated with other cardiac signs.

The relative intensity of the sounds at the apex, the regularity or otherwise, the relative number of extrasystoles and the qualitative alterations in the heart sounds, particularly reduplication, also indicate increasing or decreasing heart function. There seem to be two stages at which extrasystoles may be noted. They may occur during the second week when, if numerous, they indicate, in conjunction with other signs, severe myocardial damage. The second stage is from the fifth to eighth week when extra systoles may appear and be very numerous, but their presence then is not nearly so significant and has not in the cases studied been associated with any serious cardial phenomena.

In all severe cases proteinuria is almost a constant accompaniment.

Protection Against Measles: McKhann, C. F., J. A. M.A., 109:2034 (Dec.) 1937. Dr. C. F. McKhann, of Boston, has been interested for some time in the use of placental extract in the prevention and modification of measles, and he has recently compared its effects with those of adult and convalescent serum. The groups observed were fairly large, probably enough to be statistically significant. Complete protection was given with adult serum to 56.4 per cent., with convalescent serum 75.4 per cent., and with placental extract 56.3 per cent., while the severity of the attack was modified in 23.8, 16.8 and 30.4 per cent, respectively. The placental extract appeared to be the most successful, with only 5.3 per cent. failures, followed by convalescent serum with 7.8 per cent. and adult serum with 19.8 per cent.

As McKhann points out, although there has been a steady decline in the death rate from measles, this is believed to be due largely to general measures such as recognition that it is a dangerous disease, prevention of needless exposure, isolation of patients to combat secondary infections, and better child health and nutrition. Further improvement is desirable, but in employing such immunization methods as these it must be understood that complete protection through the use of human immune bodies lasts only a few weeks. This is of particular advantage only when used in institutions or for acutely or chronically ill, debilitated, or very young children. Otherwise it is better to aim for the permanent protection given by an attenuated attack. This may be achieved by injecting the immunizing agent either in full doses in the second half of the incubation period or in proportionately smaller amounts as soon as possible after exposure.

Program of Control of Amebiasis: Charles F. Craig, Tulane University, A.J.P.H. 28:2 (Feb.) 1938.—The evidence is conclusive that approximately ten per cent of the population of the United States harbors this parasite. There is also evidence that 50 per cent of individuals harboring it present symptoms caused by it and that even in those who present no symptoms there is tissue invasion and symptoms may develop at any time. It is not unusual for an amebic abscess of the liver to occur in symptomless individuals. In view of these facts it must be admi[illegible] that amebiasis is a real public health problem in the United States.

The first step in the control of this disease is to have physicians and laboratory technicians thoroughly trained in the differentiation of E. histolytica from the four other species of ameba living in the human intestine so that diagnosis may be made. The next essential is the reporting of all cases found to health authorities so that control measures may be instituted.

The control of amebiasis can be greatly assisted by the education of public regarding the importance of this infection and the methods of transmission, as well as those which have been found effective in preventing transmission. In this instance may be cited methods in controlling occupations of carriers and stressing the importance of those handling food being careful to observe the simple hygienic rules. Where there is an impounded filtered water supply, where sewage is properly disposed of and where sanitary plumbing exists, the transmission of amebiasis must be almost entirely due to contaminated food and drink by E. histolytica. The present session of the Mississippi Legislature has taken a very definite step forward in enacting a law making it mandatory for all plumbing installations to meet certain standards so that we may not have an epidemic of this disease in Mississippi as recently occurred among guests in a Chicago hotel, due to faulty plumbing. The Works Progress Administration program in privy building, sewage extension and protection of public water supplies is a factor that shall play no small part in reducing the incidence of this disease.

Jackson, March 3, 1938.

RADIOLOGY AND ROENTGENOLOGY

J. A. Beals, Greenville

Tuberculous Infection of the Hip Joint.—The x-ray examination is of paramount importance in the diagnosis of hip tuberculosis in its earlier stages when conservative treatment has a good chance of success. The x-ray appearance usually consists of a localized decalcification and loss of bone detail.

The experience of C. H. Hatcher and D. B. Phemister of Chicago (Surg. Gynec. & Obst., Dec. 1937) is interesting, for, of 70 cases wherein the disease started in childhood, only 26 were sufficiently early for them to detect the primary osseous point of involvement of the hip, and only 7 were so early as to show no spread of the disease into the hip joint.

Fourteen of these cases started in the femoral neck, usually adjacent to the epiphyseal cartilage and near the cortex. Ten started in the ilium and two in the ischium, both bordering the acetabulum. None started in the epiphysis for the femoral head. Furthermore they found that the characteristic early rarefaction of the cartilage covered surface of the head was not due to primary localization, although the head usually became involved in advanced stages.

Nine other early cases among children were encountered which showed no sign of a primary hip localization without the bone. The authors think these may have had their primary focus in the synovia or may have had lesions of bone too early for radiographic demonstration.

Twelve cases originated in adult life. Only in three of these was it possible to detect the primary site of infection. These appeared in the trochanter in two and the ilium in one.

The authors point out that pyogenic infections about the hip have the same tendency to appear first in the neck and ilium and to avoid the head.

The Treatment of Carcinoma of the Breast.—The Caldwell Lecture of the American Roentgen Ray Society for 1937 carries this title (Amer. J. Roentgenol., 1938). The author, Dr. George E. Pfahler of Philadelphia, one of the world's outstanding individual radiologists, views the subject from a background of thirty-six years' experience.

It is estimated from vital statistics that in the United States 13,000 women died in 1938 from cancer of the breast. Since the length of life before death is less than four years, and not more than 20 per cent are cured, there are approximately 50,000 women affected by the disease at present.

Pfahler reiterates the frequent admission of surgeons that since Halstead in 1894 introduced the operation of radical amputation of the breast with axillary dissection, surgery has made no notable advance in the treatment of cancer of the breast. Operative mortality has been reduced to between one and five per cent. Surgery alone cures 70 per cent of cases when the cancer is limited to the breast (Stage 1), but unfortunately only 10 per cent of cases are seen in this early stage. The author commends the educational work of the American Society for the Control of Cancer which will undoubtedly influence more women to seek surgery during this favorable stage of their disease. When the tumor has grown large, adherent to the skin or chest wall, or the axillary nodes are invaded, (Stage II) radical surgery alone offers only 23 per cent chance of recovery. In Stage III, when metastasis has occurred, the chances of cure are nil.

For patients in Stage I with their cancer small and limited to the breast, Pfahler unhesitatingly recommends surgery alone, saying it is not apparent that preoperative irradiation adds anything to the cure. For the occasional patient who should not or cannot be induced to submit to operation, treatment by irradiation (radium or x-rays, or both) expertly applied, offers a nearly equal chance of cure.

Patients in Stage II, i.e., operable, but not in the early Stage I, should receive preoperative radiation, surgery and postoperative radiation. This, Pfahler says, will nearly double the 23 per cent cures from surgery alone because the cancers of most active malignancy, i.e., those in which surgery is least successful, are the ones most susceptible to radiation. Preoperatively this authority irradiates the breast including the chest wall of the same side and the axilla by a fractionated-saturation dose method which introduces about 900r into the tumor and the axilla within a period of two weeks. One week later the operation is performed and is not interfered with in any way by this amount of irradiation. About 3 weeks after the last x-ray treatment, even though the operative wound is not entirely healed, Pfahler starts postoperative treatment following a similar fractionated dose method,, which brings the total amount, including the preoperative radiation up to 1,800 to 2.400r introduced within the chest wall and axilla. When it was possible to follow this regime, as in 26 of Pfahler's cases, 1922 to 1932, of Stage II breast cancer, 52 per cent are now living 5 years or more.

Breast cancer in the inoperable, Stage III, the author considers almost entirely a radiation problem in palliation. The degree of success is difficult to assess in terms of less suffering and prolongation of useful life. Postoperatively recurrent carcinoma is also a problem for radiation in which Pfahler has had five year cures amounting to 18.5 per cent of 491 cases.

Serial Pyelography.—The gastro-intestinal tract is routinely examined by fluoroscopy or serial x-ray films or both. R. B. Henline and J. L. Bray of the New York Hospital (J. Urology (Dec.) 1937) rightly claim that serial roentgenography is equally important in examination of the kidney pelvis and ureter, which also empty themselves by peristalsis, and consequently change in shape and contour from moment to moment.

Following cystoscopy and the usual functional tests one ureter is catheterized with a No. 6 F. x-ray catheter and a 20 per cent solution of skiodan is injected. An immediate film is made with the patient recumbent. The catheter is then withdrawn and repeated films made at intervals of one or two minutes. A device is used to project two or more pictures side by side on a single large 14x7 inch film. Some of these films are made with the patient sitting. If the pelvis and ureter are empty at the end of ten minutes they conclude that no obstructive lesion is present. The procedure is then repeated on the opposite side.

They have recently studied 100 serial pyelograms and find that many apparent strictures and kinks of the ureter, as judged from a single pyelogram, are not permanent or do not obstruct the flow or urine, and are, therefore, harmless. The same they have found true of cases of renal ptosis in which there was no delay beyond ten minutes in emptying the pelvis.

The article is published chiefly to report their experiments with 12 normal cases in which the emptying time was compared under conditions of forced and restricted fluids. As expected emptying of the pelvis was delayed when fluids were restricted but the delay was not beyond the ten minute period which they feel can be set as an arbitrary limit for normal emptying.

PEDIATRICS

Harvey F. Garrison, Jackson

A recent syposium on the subject of pneumonia in childhood, participated in by Drs. Joseph E. Brennemann, W. L. Crawford, John Vonachen, and Joseph K. Calvin. Iillinois Medical Journal, 72 (Nov.) 1937, 297-312, is very interesting and most instructive. There are very many valuable points brought out in the discussion of this subject. Dr. Brennemann wrote on "The Etiology and Classification," Dr. Crawford on "The Symptomology and the Diagnosis," Dr. Vonachen on "The Complications, Sequela and Prognosis in Infants and Children," and Dr. Calvin on "The Treatment of Pneumonia in Children."

Doctor Brennemann has this to say in regard to the etiology and classification: "Taken as a whole, pneumonia in childhood is a serious disease which has a high mortality. The mortality varies widely with age and clinical setting. It is high in the first year or two, notably among those less favorably situated economically, it approaches the vanishing point in later childhood, no matter what the economic and social status may be. It is obvious to the general practitioner that pneumonia is not a uniform disease in childhood, that it has a varied etiology and that it manifests itself in widely different forms and degrees of severity.

"Pneumonia of the adult is usually frankly the lobar type. The same is true of uncomplicated pneumococcus pneumonia at any age, even in infancy. Pneumonia rarely occurs in the first few months of life; beyond that period uncomplicated pneumococcus lobar pneumonia is a relatively mild disease as far as mortality is concerned. Bronchopneumonia is much more common in infancy and early childhood than it is in later life and it is this fact that makes pneumonia, as a whole, statistically considered, so much more severe and so much more fatal at that early period.

"Several factors enter into the etiology of bronchopneumonia at this age. It is practically always secondary to an infection to which the child is not yet wholly or adequately immune, such as the common cold, measles and whooping cough, and especially those ill defined more serious infections that pass under the name of grip or influenza. A second factor lies in the fact that young children, and especially infants, of the underprivileged class, are less resistant to such primary infections and react to them more seriously. A third factor, perhaps the most outstanding one, is mixed infection, or superinfection, in which the hemolytic streptococcus, a staphylococcus, and if we may accept more recent observations, the influenza organism of Pfeiffer play the leading rolls. It is probably this, and not the primary pneumoccocus infection that determines the high mortality of bronchopneumonia. This association may occur also in lobar pneumonia but less frequently and less decisively. Finally, some 32 types of pneumococcus hove been identified in children, and their etiologic and clinical significance has not been worked out to the same extent that it has been possible to do in the rather simpler situation in the adult.

"In all primary pneumonias, a pneumococcus plays the leading role, as to incidence and initiation of the disease. Infections may result from contact with a child who has pneumonia, or from a carrier, i.e., it may be exogenous in origin. Again, it may change in the host brought about by some factors as exposure, chilling, or grippy infection. It is becoming increasingly evident that classification of childhood pneumonias must be based as far as possible on specific etiology, as well into two types, lobar pneumonia that may, or may not appear as an uncomplicated pneumococcus infection; and bronchopneumonia that has a more varied etiology and a wider clinical ramification and is usually a mixed infection in which the pneumococcus may play the dominant, or at least the initial, role or may not enter into the picture at all so far as can be determined."

Under the head of rest, Dr. Calvin impressed the importance of absolute physical and mental rest, stating that cough and delirium can often be controlled by hydrotherapy and sedatives. Mental rest can be obtained by not overtreating, especially with relatively non-essential procedures that may frighten and disturb the child. The nurse and mother should disturb the patient as little as possible, and not be over zealous about keeping the bed straightened, the patient clean, the teeth brushed, and his hair combed, if these procedures annoy him while he is seriously ill, except of course, that the child's position should be changed from time to time, for reasons which are obvious. Visitors and relatives in the sick room should always be restricted. Under the head of "Room Temperature," Dr. Calvin has this to say:

"In as much as most young children with pneumonia had a preceding or associated bronchitis, moderately warm, moist air provides the greatest comfort. Fresh air without draft is also essential. This ideal of fresh, moist, warm air can be obtained even during the winter, by opening the window moderately behind a screen or ventilator, keeping the radiator turned on but covered with a wet towel, or hanging wet sheets, or boiling water in the room off and on to provide moisture. Occasionally, the child, if not too ill, can be carried into another room, while the sick room is being thoroughly aired, and the fresh air warmed before returning the child."

Under the head of "Diet," it is impressed that the diet should, during the acute stage, consist of principally fluids, and easily assimilated carbohydrates, to prevent toxemia and dehydration, ketosis and to promote diuresis. The little patient will always prefer drinking to eating during this stage. Among the carbohydrates, which are favorable, may be mentioned custards, jellies, junkets, honey, malted milk, ice cream lump sugar, pure sugar candies, and salted crackers. These foods will often increase thirst, which is desired, and in this way, we can push the fluids such as skimmed milk, fruit juices, ginger ale, broth, milk, etc. When the patient is vomiting, milk should be omitted, until the vomiting is stopped, then when the milk is started again, only skimmed milk should be used. During the convalescent stage, the child may have full diet, provided there is no gastrointestinal contraindications. The usual order of forcing fluids is over done, with frequent awakenings in eliminating fluids, and it occasionally leads to vomiting. Vomiting when persistent, can be controlled by intravenous gravity drips of glucose and saline. This is very often life saving, when the child is too sick or dyspepic to take adequate fluids by mouth. Under the head of "Hydrotherapy," Dr. Calvin has the following to say:

"Hydrotherapy is at times a valuable adjunct. A fever that is not unduly high needs no reducing, as it is probably a valuable part of the normal mechanism for combating bacterial invasion. A high fever in pneumonia, is a better sign, than a low one. If, however, the fever produces restlessness, lack of sleep, discomfort, delirium or convulsions, or there is hyperpyrexia, then measures may be instituted to reduce it. Sponging with tepid water and alcohol really has little effect on the fever, though it may refresh the patient. It may, however, subject the child to unnecessary handling, chilling and exposure."

Ice bags may be used, if the child does

not fight them. If the temperature is too high, say over 104 degrees, there is no harm in giving aspirin in the proper amount, from 1 grain at one year of age, to five grains at six years, or over. It will reduce the temperature, and acts as a sedative and often relieves pain and discomfort. Stimulants are rarely necessary, except in collapse, then adrenaline, in the proper dosage, say from 2-5 mms., is the most effective. Caffein Sodium Benzoate and cormine are also excellent stimulants. Aromatic spirits of ammonia, to the nostrils is very good. Expectorants, when the secretions are tenacious, and there is much coughing, may be used. Ammonium chloride may be used for this purpose. Atropine is positively contraindicated, except in wet pneumonias, or edema of the lungs. Mustard may be used occasionally, but very cautiously.

Cathartics: Daily evacuation is desirable. This can as a rule, be accomplished by mild laxatives, such as milk of magnesia, and also by enemas and suppositories.

Tympanites: This calls for special consideration, as it is a manifestation of toxic ileus and is a grave sign. The ordinary enemas, or the use of stupes may suffice, but when marked, enemas consisting of one ounce of glycerine, two ounces of epsom salts, and three ounces of water, are very valuable. Pitressin, by hypodermic is valuable, and surgical pituitrin may be used also.

Oxygen has a very definite place in the treatment of pneumonia of children. It should not be used just as a last resort for the benefit of the family, nor should it be used unless a definite indication exists. The child with the ordinary pneumonia, who is comfortable and does not show any respiratory or cardiac embarrassment, does not need any oxygen. There is nothing specific about oxygen therapy, other than to relieve anoxemia. Consequently, dypsnea or cyanosis are the best indications for its use. The tent method of the administration of oxygen is preferable. Blood transfusions are very often life saving, in the severe types of pneumonias. This too, can often be overdone, hence one should be guarded in the use of transfusions and the intravenous injections of glucose and saline. I have often seen ill effects from the use of both, however, I too, have often seen decidedly an improvement in their use with a seriously ill child.

Under the head of "Specific Therapy," Dr. Calvin has this to say:

"Specific immune serums, such as Felton's Type I, anti-pneumococcus serum have not been used extensively in the treatment of pneumonia of children. First, because, most pneumonia in children are not caused by Type I pneumococcus, and secondly, the very favorable outcome in lobar pneumonia, the kind most likely to be caused by Type I. Another reason is the comparative difficulty in obtaining sputum from a child, as they do not expectorate. To stick a swab into the larynx of a desperately ill child, is not an ideal therapeutic procedure. However, if the child is desperately ill with a pneumonia, proved to be Type I, II, or VIII, there is certainly no special contraindication to specific therapy. Convalescent serum has also been used, but no definite conclusions can as yet be drawn as to its value. Here again the typing is essential, and if convalescent serum corresponding to the type of pneumococcus, is available, no harm can result from its use.

Under the head of "Hospitalization," Dr. Calvin has this to say:

"Every case of pneumonia does not need hospital care. However, in seriously ill pneumonias, this type of child belongs in a well equipped hospital, because so many more life saving procedures can be accomplished if necessary. He should, however, be carefully isolated from his neighbors, for mutual protection from crossed and superinfections. It goes without saying that complications of pneumonia especially otitis media and empyema, should be carefully watched for and treated as and if they arise."

Jackson, March 4, 1938.

DESOTO COUNTY

I neglected to mention in my last report, the meeting at the University of the North Mississippi Medical Society, Wednesday, February 2. The essayists were Drs. J. H. Musser and Robert A. Strong, both members of the faculty of Tulane University of Louisiana School of Medicine. Dr. Musser is the head of the department of medicine; Dr. Strong is head of the department of pediatrics. The meeting was held in the Graduate School Auditorium. This fine society is being led this year by Dr. R. M. Adams of Ripley, president, and Dr. A. H. Little of Oxford, secretary.

The Tate County Medical Society always has 100% membership. Dr. W. D. Smith of Senatobia is president and Dr. J. Sidney Eason is secretary. Dr. Eason lives at Coldwater.

The DeSoto County Medical Unit with the above two societies constitute the Second Councilor District. Dr. J. M. Wright of Hernando is the president and L. L. Minor, secretary. The membership will be better than 1937. At that time it was in the vanguard.

Drs. W. D. Casey and C. M. Hammonds of Walls were in the Bluff City recently. Both have sons employed there. Mrs. Casey and Mrs. Hammond visit Memphis to shop and attend the picture shows.

Remedies known and approved by use and reason are to be preferred before such as are unknown, or but lately found out.—Hippocrates.

The secretaries of the component societies will hold a meeting during the State Association meeting in April. It seems that on the secretaries fall the onerous duties.

We anticipate a successful meeting in Jackson. Jackson is the largest city in the state, the accomodations are of the best and they know how to entertain. Our fraters there will gladly welcome us. So make arrangements to be present, it will do you good. President Little and President-Elect Green and others in authority have prepared a good program.

After a valiant fight from an attack of pneumonia, Dr. Eugene Joseph Johnson died recently. Dr. Johnson had a large clientele in the Tri-State territory and his many friends evinced their love and appreciation by a profusion of beautiful flowers and an immense concourse of people. Cars evidently from the country were parked by the city limousines; the physicians present would have formed a good medical society.

The next meeting of our local organization will be the fourth of April. On the program will be Drs. O. C. Brewer, D. C. Funderburke and H. M. Wadsworth. Dr. C. W. Emerson, chairman of the Hospital Committee, will make a report.

I hope to see you in Jackson, April 19-21.

Memphis, Tenn., Rt. 4, L. L. Minor,
March 9, 1938. County Editor.

HUMPHREYS COUNTY

At the request of Dr. J. W. Barkley, vice-president, the physicians of Humphreys county with the exception of two met at his office March 10 at 1:30 p. m. The purpose of this meeting was to determine attitudes towards a venereal clinic and to discuss problems with reference to the organization and maintenance of such a clinic in order to treat and eradicate syphilis. Dr. Barkley suggested that certain days and hours be fixed during which patients could be treated once or twice a week at three locations in the county. Details as to number to be treated, divisions of services to be rendered by different physicians, and divisions of county about each location would be decided upon at subsequent meetings. It was generally understood that each physician should as nearly as possible take care of his same respective cases from week to week; that every syphilitic not already examined must receive necessary physical examination and certain laboratory tests, that the individual might require, before any therapy was begun; and that certain records be kept covering temperature, weight, pulse, blood pressure, urinalysis (at least as to test for albumin) during courses of treatment and doses and number of injections given.

We readily recognize the necessity of the proposed clinic or clinics. Dr. Barkley has in his capacity as health officer ethically and as efficiently as possible treated persistently cases referred to him by orders of physicians when patients' limited finances so justified, especially after initial complete examinations were paid for. Treating venereal diseases as we understand is not primarily among his duties, but the number visiting his office has increased to the extent that their problems cannot be solved by one man.

It is generally conceded that mass treatment is better than inadequate or no treatment of syphilis. We would like to banish it forever. Our problem is not simple among a population of 99-plus per cent ignorance concerning all of its phases in apparent health and disease and concerning what constitutes adequate treatment of the average case we agree, should proposed clinics be organized, that the mechanical injecting into syphilitics of drugs that are potentially dangerous in certain stages of the disease and when certain complications may exist would not be practical until the physician administering treatment should have become familiar with his cases. We could expect to come to grief in an otherwise loose, hap-hazard undertaking. We agreed to work for $3.00 per hour which is $2.00 less than the average physician should receive for general services. If the cost of becoming familiar with cases to be treated is not provided for by the agencies which are suggested to propose to pay $3.00 per hour, then the patient would be expected to meet such expense.

Belzoni, J. W. Jackson,
March 14, 1938. County Editor.

LEFLORE COUNTY

Sixteen doctors were present at the regular staff meeting of the Greenwood Leflore Hospital, Thursday night, February 3, and enjoyed a nice steak supper, and strawberry short cake. After reading reports of work done in hospital during the month, the proposed venereal clinic for Greenwood and vicinity was discussed, and on motion was indorsed.

Among the visiting doctors to Greenwood during February were: Dr. W. H. Weeks, Doddsville; Dr. H. C. Ricks, of the State Board of Health, who addressed the Itta Bena Rotary Club and the Greenwood Kiwanis club, Feb. 16; Dr. and Mrs. Mayo Flint, Newton, who visited relatives in Schlater, Feb. 18; Dr.

and Mrs. C. J. Pittman, and daughters, Lynda Young and Mary Sue, Ruleville, who visited in the home of Mr. and Mrs. W. M. Loyd Feb. 20; and Dr. and Mrs. R. D. Dickins, Monticello, Ark., who visited in the home of Dr. and Mrs. W. B. Dickins, Feb. 26-27.

Dr. Geo. Baskervill attended the funeral of his cousin, Mr. Wallace Alexander at his home in Alexandria, La., Sunday, Feb. 13.

Among the doctors who attended the meeting in Memphis of the Mid-South Postgraduate Medical Assembly, Feb. 15 to 18, were Drs. G. Y. Gillespie, Jr., L. B. Otken, J.A. Crawford, J. P. Bates, F. M. Sandifer, Jr., J. F. Lucas, Greenwood, Dr. T. M. Riddell, Swifton, Dr. E. R. Shurley, Money.

Dr. W. E. Denman, Jr., son of Dr. and Mrs. W. E. Denman, Greenwood, and Miss Sal Whitaker, laboratory and x-ray technician of the Physicians and Surgeons Building, Greenwood, were married in Greenville, Friday, Feb. 17. They will live in this city on River Road for the present.

Mrs. B. B. Harper, wife of Dr. B. B. Harper, Itta Bena, was admitted to the Greenwood Leflore Hospital, Feb. 24, for treatment. She is very much improved at this time and will be able to return home in a few days.

Dr. S. L. Brister visited Memphis a few days the latter part of the month.

Dr. and Mrs. W. B. Dickins and family spent Sunday, Feb. 27, in Memphis in the home of Mr. and Mrs. Pope McCorkle.

Dr. L. B. Otken spent Sunday, Feb. 27, in his old home at McComb.

Greenwood, W. B. Dickins,
March 2, 1938. County Editor.

PRENTISS COUNTY

Dr. and Mrs. A. G. LeRoy are the happy parents of a fine girl, born Jan. 20, named Ina Marie.

Dr. G. S. Bryan was the guest of the Northeast Mississippi Hospital Staff at the monthly meeting, Feb. 7, and gave a very interesting lecture on the serum treatment of pneumonia. Dr. Bryan is the sage of medicine and surgery.

Dr. L. L. McDougal, Jr., is connected with a Paris, Texas, hospital and limiting his practice to the diseases of children. He is very much delighted with his location.

The writer and some other friends contracted food poisoning in a cafe Dec. 30, which proved quite serious with us. After a few days spent with Dr. Seale Harris in Birmingham, we were able to make the grade. Many thanks to him.

Several of our doctors attended the Mid-South medical meeting at Memphis.

The Northeast Mississippi Hospital Tubercular Unit is completed and will be furnished and ready for use soon.

The editor of the Mississippian was the principal speaker last week at a staff meeting of the Ole Miss Medical faculty. Dr. Anderson is doing a great work for organized medicine.

Booneville, Dr. L. L. McDougal, Sr.
March 1, 1938. County Editor.

WASHINGTON COUNTY

Those doctors who attended the Mid-South Postgraduate Medical Assembly at Memphis, Feb. 15 to 18 were Drs. F. M. Acree, P. G. Gamble and John G. Archer, Greenville; J. S. Sanders, Leland; and S. L. Lane, Hollandale.

Dr. Paul G. Gamble addressed the Rotary Club of Lake Providence, La., Feb. 23. His talk was on the general subject of cancer, with special reference to its prevention and early recognition.

Dr. F. M. Acree, Greenville, has associated with him Dr. Roger John Williams, recently of Hot Springs, Ark. Dr. Williams is a native of Jackson, Tenn. He is a graduate of the University of Tennessee, class of 1934, and spent some time after graduation in the clinic of Dr. Willis Campbell of Memphis.

Mrs. W. C. Spencer, wife of Dr. Spencer, Greenville, spent the month of February in Washington, D. C., where she attended a training school for executive secretaries of the American Red Cross. Mrs. Spencer's services to Washington County as local Red Cross executive have been greatly appreciated. On her return she reports that Dr. DeKlein, national director of health services of the Red Cross, is interested in the syphilis clinic which is in operation here and expects to visit Greenville during March.

A health nurse is to be employed in the near future for service in this county. Her activities will be in part connected with the venereal clinic. This valued addition to the health work of the county is made possible, through Mrs. Spencer's efforts, by the Red Cross in co-operation with the State Board of Health which has funds for the purpose from the Children's Bureau provided by the Social Security Board.

It is with profound regret that we report the death of Mrs. G. W. Eubanks, wife of Dr. Eubanks. She succumbed after a short illness, Feb. 22. She is survived by her husband, Mrs. Lewis Garrett, a sister and two brothers. Dr. and Mrs. Eubanks moved to Greenville from Helena, Ark., about seven years ago. The passing of Mrs. Eubanks will be long and deeply felt by her many friends.

The doctors of Washington County, several months ago, enacted resolutions favoring the development of a health resort at Leroy Percy State Park, to take advantage of the copious warm springs of the park. The local post of the American Legion has interested itself in the same project. In conjunction with the Washington County Park Commission they have petitioned the Mississippi State Park Commission to apply to the Warm Springs Foundation, of President Roosevelt's sponsorship, to have the Foundation investigate the springs at Percy Park and lend their good offices in developing here a resort similar to that at Warm Springs, Ga.

The County Board of Supervisors have agreed to build a small building to accomodate the free venereal clinic sponsored by local doctors and at present conducted by C. T. Berry. The building will be located on the County's property near the jail.

Dr. W. P. Shackelford reports that the City of Greenville has appropriated funds for control of malaria. This project was recommended by local physicians several months ago. The cost will be approximately $2,000.00. Dr. Shackelford estimates that if the campaign is fairly effective it will save the public this amount in the cost of antimalarial medication alone.

Greenville. J. A. Beals,
Mar. 3, 1938. County Editor.

WINSTON COUNTY

One of the sadest deaths to many of the friends of Dr. Eugene J. Johnson of Memphis, Tenn., was realized here when the report of his death Feb. 20, was made.

Dr. Johnson was not only a great surgeon, but was a real man whose worth was appreciated by all that knew him; another evidence that doctors must die like others.

Dr. W. W. Parks and his wife spent the week end in Jackson.

Drs. C. A. Kirk and E. L. Richardson visited Memphis last week.

Dr. L. T. Parks and wife spent the night with Dr. and Mrs. W. W. Parks this week.

Drs. E. Lovorn of Fearn Springs and T. C. Suttle of Beth Eden neighborhood were on the streets this week.

Louisville, M. L. Montgomery,
March 1, 1938. County Editor.

HOSPITALS

MISSISSIPPI HOSPITALS—CALENDAR OF STAFF MEETINGS

MISSISSIPPI STATE HOSPITAL ASSOCIATION, Ninth Annual Session, Jackson, April 18, 1938.

Aberdeen Hospital: Third Monday, each month, 7:00 p. m.

Anderson Infirmary: First Friday, each month, 6:30 p. m.

Biloxi Hospital: First Friday, each month, 7:30 p. m.

Bramlett Hospital: Third Wednesday, each month, 7:30 p. m.

Clarksdale Hospital: Second Wednesday, each month, 12:00 noon.

Field Memorial Hospital: Second Thursday, each month, 6:30 p. m.

George C. Hixon Memorial Hospital: Second Monday, each month, 7:30 p. m.

Gilmore Sanitarium: Third Thursday, each month, 8:00 p. m.

Greenwood-Leflore Hospital: First Thursday, each month 6:30 p. m.

Grenada Hospital: Second Tuesday, each month, 6:30 p. m.

Holmes County Community Hospital: Second Thursday, each month, 7:00 p. m.

Houston Hospital: Fourth Friday, each month, 7:00 p. m.

Ivy Hospital: First Monday, each month, at 7:00 p. m.

Jackson County Hospital: Second Thursday, each month, except July and August, 7:00 p.m.

Jackson Infirmary: Last Tuesday, each month, except three summer months, 7:00 p.m.

King's Daughters Hospital, Brookhaven: First Tuesday, each month, 7:00 p. m.

King's Daughters Hospital, Greenville: First Wednesday, each month, 7:30 p. m.

King's Daughters Hospital, Gulfport: Third Thursday, each month, 8:00 p. m.

King's Daughters Hospital, Yazoo City: First Monday, each month, 8:00 p. m.

McGee General Hospital: Twenty-fifth each month, 6:00 p. m.

Mayes Hospital: First Monday, each month, 2:30 p. m.

McComb City Hospital: First Tuesday, each month, 6:00 p. m.

McComb Infirmary: Second Tuesday, each month, 6:30 p. m.

Meridian Sanitarium: Second Thursday, each month, 6:30 p. m.

Mississippi Baptist Hospital: Third Tuesday, each month, 6:30 p. m.

Natchez Sanatorium: Second Tuesday, each month, 7:30 p. m.

New Albany Hospital and Clinic: Second Tuesday, each month, 8:00 p. m.

Newton Hospital: Second Thursday, each month.

Northeast Mississippi Hospital: First Monday, each month, 7:00 p. m.

Oktibbeha Hospital: Last Thursday, each month, 7:30 p. m.

Oxford Hospital: Last Monday, each month.

Pontotoc Clinic: First Tuesday, each month, 7:30 p. m.

Rush's Infirmary: First Friday, each month, 7:30 p. m.

Scott County Hospital: Third Wednesday, each month.

South Mississippi Infirmary: Last Thursday, each month, 5:00 p. m.

Tylertown Hospital: Second Tuesday, each month, 7:00 p. m.

U. S. Veteran's Hospital, Gulfport: Every Monday, Tuesday, Wednesday, and Thursday, 10:45 a. m.

Vicksburg Hospital: Second Thursday, each month, 7:00 p. m.

Vicksburg Infirmary: First Wednesday, each month, 7:00 p. m.

Vicksburg Sanitarium: Tenth or week of tenth, each month, 6:30 p. m.

Water Valley Hospital: Third Thursday, each month, 7:30 p. m.

Winona Infirmary: First Thursday, each month, 7:30 p. m.

JOINT STAFF MEETING

A joint meeting of the staff of the Oxford Hospital and the staff of the Bramlett Hospital was held Friday, February 25, at 7:30 p. m. in the auditorium of the Graduate School at the University of Mississippi.

The meeting was called to order by Dr. J. B. Looper, secretary of the Faculty Club. Program:

Lantern slide lecture by Dr. Milton Adams of Memphis, Tenn., on "Plastic Surgery."

Dr. W. H. Anderson of Booneville, gave a most interesting talk on "Some of the Present Day Problems in Medicine."

The next meeting of the staff of the Oxford Hospital will be March 28th at 7:30 p. m.

Oxford, Mar. 5, 1938. A. H. Little, sec'y.

GRENADA CLINIC

The Grenada Clinic has recently moved into a handsome new building, erected for its own use. The building is of concrete, brick, steel and glass, 103 by 28 feet. The interior is plaster over steel laths and the concrete floors are covered with linoleum. Glass wool was used for insulation. The temperature of the building is automatically controlled. An oil burning furnace supplies the heat. Included are waiting and retiring rooms for white and colored patients, a business office, emergency room, x-ray and dark rooms, clinical laboratory, and nine offices, some arranged in suites.

The clinic is served by Drs. J. K. Avent, S. B. Caruthers, R. A. Clanton, F. S. Hill and J. S. Sharp.

THE NATCHEZ CHARITY HOSPITAL*

Lucien S. Gaudet, M.D.
Natchez, Miss.

I am grateful for the privilege of addressing you this afternoon, at this gathering in honor of these graduates who for many long months have looked forward to this great occasion, which means so much to them and their future vocation.

We are standing here within the walls of a most sacred and venerable institution of many years existence and I should like to dwell on its past history.

The first hospital in Natchez was founded in 1805, and stood on St. Catherine Street, and was called the Natchez Hospital. The Board of Trustees consisted of John Steele, Albert Bergaman, Wm. Brooks, Wm. G. Forman, Abijah Hunt, John Girault, Ferdinand Claiborne, Samuel Postlethwaite, John Henderson, Job Routh.

Several of the earlier doctors and surgeons were Drs. Lattimore, McCrery, and Prendegast.

A hundred years ago, in August, 1837, this present lot of ground on which this building now stands was purchased for the erection of a Marine Hospital that river men and marines might receive proper medical care.

In this present time this sounds rather strange, but we must consider that 100 years ago, there were no railroads and the Mississippi river was the lane of commerce and Natchez was a seaport with vessels coming and going from every nation.

A long time elapsed before a building was erected, due supposedly to a depression in the 30's a hundred years ago.

In 1840 Gov. Blackburn of Kentucky began the agitation of securing a National Marine Hospital in Natchez and through his efforts the National Government made appropriations and in 1849 this building was begun under Lieutenant Col. S. H. Long of Louisville, supervising architect, and cost around $60,000.00 exclusive of grounds. The contractors were the firm of Reynolds & Graves, with the brick made here, the wood work from the East and the stone from on the Ohio river near New Albany.

The building needs no description as it stands now as a monument to the skill and fidelity of its builders.

Under the roof were 4 iron tanks, each containing 10 barrels and in the yard 4 large cisterns for water supply. How the water was gotten into the 4 tanks under the roof is not mentioned, but it is presumed some type of hand pump was used.

This hospital was opened for patients in 1853 and Dr. L. P. Blackburn was its first surgeon in charge. After the battle of Shiloh many wounded confederate soldiers were tenderly ministered to, in this very same building.

After the fall of Vicksburg in 1863 the hospital was under military rule and became a hospital and administrative building for the Yankees.

In 1876—61 years ago, this hospital was sold by the Collector of Customs for $5,000.00 to the American Baptist Missionary Society, composed of Negroes.

In 1878, Rev. Charles Ayer opened a Theological Seminary for training negro preachers.

What changes time does perform as we go on from day to day!

This venture of training preachers must not have worked out so well for in the 80's the City of Natchez purchased the hospital. The story of our present hospital is long and full of interest. It has been first in many things. Doctors with nation wide recognition have served their internship here, and to it belongs the honor of establishing the first training school in the State which should be of utmost interest to the students and graduate nurses of this institution.

The first training school in the State of Mississippi was founded in 1901 by Dr. E. F. Brown. Miss Carrie Goodman of New Orleans was made the first superintendent of nurses, with a class of 7 members.

The first State Nurses Association was also organized here with 13 charter members. It can truly be said—Natchez was first in many things; railroads, churches, Masonic lodges and so on.

Many highly successful physicians were connected with this hospital: Dr. Blackburn, Dr. Brown, Dr. Dicks, Dr. John Chamberlain and Dr. Charles Chamberlain and Dr. Ullman of Natchez, Dr. Mullens of Bude, Dr. Whittaker of St. Joseph and others.

All of those who have gone out of this hospital equipped to save lives and fight disease, may never be known, but the dying have been comforted; the sick treated and the wounded healed. After all, health is our most valued possession, and for that reason the fight against disease and death marches on unceasingly.

In the hundred odd years of its existence, humanity has changed little, but science has made marvelous strides—and side by side with the advance of medicine, has stood the loyal and true hearted nurses, who day by day minister to the cries of those in pain, sickness and sorrow.

These young ladies who have worked so hard for many months are about to reap the fruit of their labor. The most valuable things we have in life come to us by work. The most expensive way to acquire anything is to have it given to us.

You have the great honor and privilege of being trained in your life work in an institution that is far more fitted with honor and accomplishments and past history than any other in our State, so receive your diplomas with joy; hold them high, and as you go out into the World to practice your profession and earn your livelihood, ever remember the charge left you by Florence Nightingale and be ever ready to relieve the ill and the suffering, and further emblazon your profession with golden crowns, so that when your day is done, some distant voice will softly say, Well done thou good and faithful angel of mercy.

I am garteful to Mrs. Edith Wyatt Moore, Historian, for much of the past history in this address.

---

*Address to Nurses Graduating Class, Natchez, May 23, 1937.

SCOTT COUNTY HOSPITAL

The Scott County Hospital, located at Morton, opened its doors about October 15, 1937. The institution is a modern brick structure equipped with steam heat, and having 16 beds. All of the equipment was purchased new and is of the most modern type.

The owners, Drs. J. M. Townsend and O. J. Burnham, have been residents of Morton for a long time and to them is due the credit of creating an institution which is already doing a great work for the people of Scott County. Operation for five months has shown that the hospital is a success, the amount of work far exceeding expectations.

In addition to Drs. Townsend and Burham, Dr. W. A. Jones and Dr. G. G. Townsend have their offices in the building, Dr. G. G. Townsend being the superintendent. Other physicians on the staff include Drs. W. E. Anderson and R. B. Austin, Forest; R. B. Baugh, Polkville; L. O. Church, Pelahatchie; O. O. Austin, Harperville; J. R. Edwards, Leesburg; and K. P. Wood, Lena. The staff is organized and meetings are held each month on the third Wednesday night. Staff officers are: President, Dr. J. M. Townsend; First Vice-President, Dr. W. E. Anderson; Second Vice-President, Dr. L. O. Church; Secretary and Treasurer, Dr. G. G. Townsend.

Morton, G. G. Townsend.
March 14, 1938.

VICKSBURG SANITARIUM

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held Thursday, March 10, and after a supper served at 6:30 p. m. was called to order by the president, Dr. Leon S. Lippincott, with thirteen members and three guests present.

Reports from Records Department and Analysis of the Work of the Hospital.

Special Case Reports:

(1) Ovarian Cyst.—Dr. J. A. K. Birchett, Jr.

(2) Pick's Disease.—Dr. L. J. Clark.

(3) Meningococcus Meningitis Treated With Meningococcus Antitoxin.—Dr. G. C. Jarratt.

Discussed by Dr. H. L. Van Winkle and Dr. Lippincott.

Demonstration of Selected Radiogrophic Studies.— Pott's Disease, Thoracic, Associated with Pulmonary Tuberculosis; (2) Pulmonary Tuberculosis (Two Cases); (3) Cholelithiasis; (4) Calculus of Urinary Bladder; (5) Ureteral Obstruction.

Three-Minute Reports of Literature of the Month:

1. Dr. G. M. Street—Blood for Transfusion from Cadavers.
2. Dr. A. Street—Preserving Blood for Transfusions.
3. Dr. R. A. Street, Jr.—Basal Metabolic Rate in Normal Pregnancy.
4. Dr. H. H. Johnston—Chest Complications Following Acute Sinus Infections—Experimental.
5. Dr. W. E. Johnston—Boiled Bone Grafts Used for Live Grafts.

The next meeting of the staff will be on Monday, April 11.

ABSTRACT: OVARIAN CYST

J. A. K. Birchett, Jr., M.D.

Patient—White female, age 21.

Present Complaint—Swelling of abdomen, of rapid development.

History of the Present Complaint—Patient first noticed about 5 weeks ago that her waistline was beginning to get tight and that there was a sense of fullness in her abdomen which was especially associated with the taking of food and it was necessary to loosen her clothing to get relief for the pressure. She also developed constipation, which was unusual for her, as her habits had been regular. There was a frequent desire to urinate, and she said that it felt as if something was pressing on the bladder. Her menstrual cycle had been regular and without discomfort. The duration of the period was not over five days, and she last menstruated on Jan. 15. The abdomen has now become so distended that she has difficulty in sitting down or leaning over because of increased pressure symptoms of the upper abdomen and difficulty in taking a deep breath.

Past History—Usual childhood diseases. Her menstrual cycle began at fourteen years of age, regular, free, five to seven days' duration without pain. At ten years of age she had her adenoids removed. Past history otherwise negative.

Family History—Father, 65, living and well. Mother died at 48 with cancer of the liver. Three brothers living and well; two sisters living and well.

Clinical Laboratory—Blood count normal; urine negative for pus, blood, sugar or albumin. Sedimentation shows index 5 millimeters and time 2 hours, forty-five minutes, which was considered quiescent. The Wassermann, Kahn, Kline and Young, and Eagle flocculation tests are negative for syphilis.

An x-ray taken of the pelvis shows a large soft mass filling the true pelvis and extending upward to the middle of the fifth lumbar vertebra, suggestive of fluid.

Physical Examination—Very well-developed and nourished white female of early adult life, not acutely ill. Temperature on admission 98.6°F., pulse rate 80, blood pressure 120/80. General physical examination essentially negative, except for enormous distension of the abdomen, which was suggestive of a large abdominal tumor, either due to pregnancy, fibroid, or cystic ovarian mass.

Pelvic examination definitely ruled out the possibility of a pregnancy, as the cervix was perfectly normal, and the uterus could be readily palpated below and to the right of the tumor mass, which seemed to be affixed to the right adnexial region. For this reason, it was not necessary to do an Aschheim-Zondek test for pregnancy, or for lipiodol injection of the uterus to definitely map out this structure by x-ray.

Procedure—The patient was informed that she had a tumor of the ovary and was advised to have surgical removal. She, therefore, presented herself for surgical relief of this embarrassing and uncomfortable enlargement of her abdomen and, Feb. 7, under general anaesthesia, a short low median incision was made and a large pelvic mass, originating in the left ovary, was found. The tumor was already beginning to become affixed to the parietal peritoneum, because of the constant pressure and irritation of these two surfaces, and there were one or two loops of bowel which were adherent to the posterior surface. It was an easy matter to introduce a trochar into the cystic mass, the wall of which was apparently ½ inch in thickness, and over two gallons of straw-colored material was aspirated from the cyst. As the tumor was collapsed, it was easily withdrawn from the small incision, and the pedicle was isolated and doubly ligated with chromic catgut. The tube was an integral part of the mass and was removed with it. The stump was carefully peritonealized and the abdomen was closed without drainage. As the appendix was large and boggy and contained several concretions, we felt it advisable to remove it at the same procedure, and this was done. The postoperative progress was uneventful. There was no abnormal rise of fever; there was no development of any peritoneal disturbance, such as distension or excess abdominal pain, and the wound healed cleanly, the sutures being removed on the tenth day, and the patient was discharged from the hospital on the twelfth postoperative day .

Comment—We feel that this patient was fortunate in not having some type of complication with this large cystic mass during the time of its development to the time that she presented herself for surgical relief, as it is not unusual that these cystic masses may undergo torsion of the pedicle with gangrene and rupture of the cyst into the peritoneum, with immediate evidence of shock and the development of peritonitis, which may either be septic or aseptic in type and which would, naturally, jeopardize the patient's existence. As it was, this tumor grew so rapidly and filled up with fluid to the extent that there was little room for it to have an opportunity of undergoing torsian with a development of the above-mentioned emergency. Another interesting point in connection with this mass is its rapidity of growth. The patient insists that it was present for only five weeks prior to the time that she came to see us. The pathological report showed no evidence of malignancy.

ABSTRACT: PICK'S SYNROME

L. J. Clark, M.D.

Patient—White female, age 45, married, no pregnancies. First seen in the clinic in March, 1936.

Chief Complaint—Shortness of breath, full feeling in the lower right chest, weakness, some loss of weight, no fever.

Past History—Has always been healthy as a young girl. Had the usual childhood diseases. In 1934, was treated by a local physician for a dry pleurisy of the left side. Four months later, had the same condition to occur on the right side. There was no fever, nor were there any complications following these illnesses. Has been married twice. First husband died of tuberculosis, and she nursed him throughout this illness.

Present Illness—Has gradually been noticeable since the pleurisy in 1934, and there has always been dyspnoea and, recently, some orthopnea on slight exertion.

Family History—Has two sisters living and well. Remaining history is of no importance.

Physical Examination—Well-developed and fairly well-nourished white female, apparently uncomfortable, slightly anemic. Blood pressure and heart rate were within normal limits. The chest revealed dullness in the right side, extending to level of the fourth rib, anteriorly, and some displacement of the heart to the left. The liver edge was below the costal margin. There were no unusual sounds or murmurs noticed in the precordium, and the sounds, at this time, were distinct. Remaining examination was entirely normal. Aspiration revealed a blood-tinged fluid at first aspiration and repeated aspirations. About four liters were removed and replaced by a moderate amount of air and the chest re-x-rayed. No information was obtained as to the real cause of this condition. Conclusions were re-checked and verified by the Mayo Clinic and the Mississippi State Tuberculosis Sanatorium field physicians. They made a diagnosis of tubercular pleurisy with effusion and advised rest. The first fluid withdrawn was injected into a guinea pig and, at the end of three months, the guinea pig was found to be normal in every respect. Autopsy failed to reveal any evidence of tuberculosis. The Mantoux skin test, at this time, was normal.

This patient was also seen by members of the medical department of Stanford University, Palo Alto, California, who were unable to conclude definite etiological factors as to this bloody fluid. She was kept in bed for several months and regained considerable strength. It was only necessary to re-aspirate on one occasion. There was no fever at any time. She returned to work and was comfortable until about the middle of December, 1937, at which time she began to notice increasing dyspnoea and considerable upper chest constriction, with swelling of the extremities and abdomen, loss of weight, and hemoptysis. She returned to the hospital and was re-aspirated. A total of 5,000 c.c. of bloody fluid that was rather thick in consistency was withdrawn. X-rays were taken at this time, after the fluid was withdrawn, and some air replaced, and showed that there was a distinct enlargement of the heart as compared with the x-rays of two years previously. The heart also was showing evidence of some pericardial fluid. The right lower lobe gave the appearance of an atelectatic condition, but this was not definite. The picture in this case began to change from that of a pleural effusion, tubercular in origin, to that of a cardiac disturbance, suggesting a chronic pericarditis with some effusion. After re-aspirating the chest, the patient still remained dyspneic and cyanotic. She returned home and was brought in three days before death, complaining of an exaggeration of all symptoms, dyspnoea, cyanosis, edema of the extremities, increased hemoptysis, fullness in the region of the liver, some peritoneal fluid demonstrable, and a distinct precordial constrictive feeling, with a definite weakening of the radial pulsations. She was put in an oxygen tent for the first 24 hours. Thinking possibly this condition was congestive heart failure, the result of myocardial weakness, she was given rather large doses of digitalis, which failed to give any relief whatsoever. The patient rapidly grew worse and, about six hours before death, became very groggy and oxygen administration had no effect on her condition at all. She died very suddenly, after being in the hospital three days. There have been a total of six guinea pig inoculations with the chest fluid, all of which were negative for tuberculosis, and a recent Mantoux about a month before her death was also negative. This seems to exclude tuberculosis.

Autopsy was refused. Consequently, this case was still undiagnosed. I offer it as a case presentation, presenting symptoms and findings of Pick's syndrome. As we all know, there are no positive signs of this disease, and that it is frequently rheumatic in origin, tubercular, or influenzal, and that it consists of an adhesive pericarditis with chronic mediastinitis and pseudosclerosis of the liver. There is also a polyserositis with chronic pleuritis, peritonitis, perisplenitis, and perihepatitis. In instances, the capsules of the liver and spleen, and the peritoneum may become quite thickened and icy. One may have adhesive pericarditis with or without such pathological changes; Contrariwise, the pericardium may be normal when these abdominal findings are present. The so-called signs of adhesive pericarditis are numerous and bear the names of many prominent clinicians, but for the most part are unreliable diagnostically. Studies throughout the world tell the same tale, namely, that this condition is generally first recognized at the autopsy table. There is, however, increasing interest of late in these types of cases, and much has been uncovered. Systolic retraction of the apex region is a common finding. The heart is also noticed to be immobile and does not shift with changing positions of the patient. On deep inspiration, the left border of the cardiac dullness may be un-altered, because the left lung is prevented from extending over the heart by adhesions between the heart and the anterior chest wall. On examining the interspaces below the angle of the left scapula, a systolic retraction may be seen on careful inspection. This is Boardbent's sign. A diastolic shock may be felt at the apex region, and a diastolic collapse of the jugular vein may be present. A diminution, or disappearance, of a radial pulse with inspiration, called pulsus paradoxus, has also been described as a sign. Electrocardiographic studies are of interest in that shifting positions of a patient will usually elicit the same electrocardiograms in each position. The x-ray is of great interest in that irregularities in the contour of the heart, as a result of adhesions, may be seen. The heart may fail to descend as in a normal inspection. This will be noticeable by the fluoroscopic examination. There is one sign that is pathognomonic of adhesive pericarditis, and that is the finding of calcifications in the pericardium by the x-ray, which usually indicates advanced disease. All of these findings may be present in some cases, and autopsies find a normal pericardium. Within the whole syndrome it is very variable.

This particular case remains undiagnosed and, presents many interesting possibilities. I do not think it is tubercular or malignancy.

HONOR ROLL

The following have contributed to the Mississippi State Medical Association Section of the journal this month:

County Editors: Adams, Lucien S. Gaudet; DeSoto, L. L. Minor; Humphreys, J. W. Jackson; Leflore, W. B. Dickins; Prentiss, L. L. McDougal; Washington, J. A. Beals; Winston, M. L. Montgomery.—7.

Societies: Adams County, Lucien S. Gaudet; Issaquena-Sharkey-Warren Counties; North Mississippi, A. H. Little; Tri-County, J. C. McGuire; Wilkinson County, C. E. Catchings. —5.

Medical Literature: A. Street, Alston Callahan, Thomas L. Blake, Felix J. Underwood, J. A. Beals, Harvey F. Garrison.—6.

Hospitals: Bramlett Hospital; Oxford Hospital, J. C. Culley; Grenada Clinic, J. K. Avent; Natchez Charity Hospital, Lucien S. Gaudet; Scott County Hospital, G. G. Townsend; Vicksburg Sanitarium.—6.

Others: W. L. Little, Harvey F. Garrison, F. M. Acree, Guy C. Jarratt, Felix J. Underwood.—5.

Total, 29.

Your Editors Thank You.

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASS'N

President	Mrs. C. C. Hightower Hattiesburg
President-Elect	Mrs. John Howell Canton
First Vice President	Mrs. D. J. Williams Gulfport
Second Vice President	Mrs. J. P. Wall Jackson
Third Vice President	Mrs. Henry E. Frizell Vaughn
Fourth Vice President	Mrs. V. B. Philpot Houston
Recording Secretary	Mrs. H. C. Ricks Jackson
Treasurer	Mrs. J. D. Simmons Cleveland
Historian	Mrs. Harvey F. Garrison Jackson
Parliamentarian	Mrs. Adna G. Wilde Jackson

Councillors: Mrs. T. G. Hughes, Clarksdale, first district; Mrs. C. M. Roberts, New Albany, second district; Mrs. W. H. Cleveland, Tupelo, third district; Mrs. E. C. O'Cain, Winona, fourth district; Mrs. Hugh Johnston, Vicksburg, fifth district; Mrs. H. Lowry Rush, Meridian, sixth district; Mrs. J. P. Culpepper, Hattiesburg, seventh district; Mrs. W. K. Stowers, Natchez, eighth district; Mrs. Archi-

The following message from Mrs. C. C. Hightower, Hattiesburg, President of the Auxiliary to the Mississippi State Association, is sent to members and wives over the state. The meeting promises to be an excellent one.

A MESSAGE TO WIVES OF MISSISSIPPI DOCTORS

The Auxiliary to the Central Medical Society has planned a most enjoyable social program for doctors and wives during the annual State Medical Convention, April 19, 20, in Jackson.

The Past Presidents' Luncheon will be in the home of Doctor and Mrs. Frank L. Van Alstine at one o'clock Tuesday, April 19. Open house honoring officers of the Medical Association and the Auxiliary, with Dr. and Mrs. Harvey Garrison, Sr., and Dr. and Mrs. Harvey Garrison, Jr., hosts, will be the next social courtesy tendered the association. The hours will be from 5 p. m. to 7 p. m. The home of Doctor and Mrs. Garrison, Sr., will be open for this occasion and the entire membership will be guests.

At one o'clock, Wednesday, April 20, a joint luncheon honoring Dr. W. L. Little, president of the association, and Dr. J. Green, president-elect, will be given at the Edwards Hotel. According to custom, your auxiliary president will preside on this occasion and will introduce her successor, Mrs. John B. Howell, of Canton. All members of the Mississippi Medical Association will be guests.

From 7:30 to 10:00 p. m. a reception and garden party will have as hosts, Dr. and Mrs. Carter O'Ferrall. They will entertain at 607 North State Street.

The concluding social event will be a dance on the Robert E. Lee Hotel Roof at 10:00 o'clock, Wednesday evening.

An executive board meeting Tuesday, a post convention board meeting Wednesday, and one short general session will constitute the only Auxiliary activities other than the social ones outlined above. As your president, may I urge you wives to come with your husbands and help us to show our appreciation for these lovely courtesies so graciously planned for us. May I remind you again that the primary aim of your auxiliary is social, a fostering of fellowship within the medical profession.

I could not close this message without extending my deep appreciation to each of you who has been so kind and helpful to me in the work we have tried to do this year. I hope to see you in Jackson to say in person a little of what I feel.

Elizabeth P. Hightower, (Mrs. C. C.)
President, Auxiliary to the Mississippi Medical Association.

NORTHEAST MISSISSIPPI 13-COUNTY MEDICAL AUXILIARY

The wives of Pontotoc doctors graciously received the members of the Northeast Mississippi 13-County Medical Auxiliary at the First Baptist Church March 15, for a delightfully planned afternoon. The business meeting was presided over by the president, Mrs. L. L. McDougal, of Booneville, who urged a greater enrollment of the auxiliary. Mrs. O. B. Crocker, of Houston, Mrs. E. B. Burns, of Ecru, Mrs. John Rayburn, of Pontotoc, and Miss Helen Branham, of Tupelo, were added to the list of new members.

Mrs. J. A. Rayburn, president of the Four-County Unit, presided over the program of entertainment. This included a number of selections of local talent.

A dainty refreshment plate regaled the guests at the close of the afternoon.

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical
Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice Limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tennessee

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 5-1288
899 Madison Ave. Memphis, Tenn.

LUCIEN A. LeDOUX, M.D.
Gynecology and Obstetrics
Maison Blanche Building
New Orleans

DRS. HENDERSON & HALL
Dermatology and Syphilology
Radium and X-Ray as applied in this field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Phones: Off: 6-1923 —:— Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Mississippi

J. WESLEY McKINNEY, M.D.
Ophthalmology
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
— Dermatology —
Standard Life Building
Jackson, Mississippi

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY — UROLOGY — SURGERY
899 Madison
Memphis, Tennessee

WILLIAM MILTON ADAMS, M.D.
Practiced Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tennessee

HENRY G. HILL, M.D.
Clinic 847 Madison Avenue
Memphis, Tennessee
Practice Limited to:
Diseases and Injuries, Bones and Joints, Cripples and Deformities, Braces and Appliances

---

FRANK W. SMYTHE, M.D.
Practice Limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison, Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-Surgery
Physicians and Surgeons Bldg.
Memphis, Tennessee
Phones: Off. 6-3288 Res. 2-9645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tennessee

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex — 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tennessee

GILBERT J. LEVY, M.D.
Practice Limited to Diseases of Children and Communicable Diseases
20 S. Dunlap St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tennessee

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

DR. WILLIAM F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Mississippi

CHARLES D. BLASSINGAME, M.D.
414 Physicians and Surgeons Building
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis
Diseases of Infants and Children
Lamar Life Building
Jackson, Mississippi

ROBERT H. BRUMFIELD, M.D., F. A. C. S.
General Surgery and Urology
McComb, Mississippi

DR. J. W. LIPSCOMB, JR.
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Mississippi

LAWRENCE W. LONG, B.A., M.D., F.A.C.S.
410-412 Standard Life Bldg.
Jackson, Mississippi
GENERAL SURGERY
Surgical Diseases of Children

F. M. ACREE, M.D.
Greenville, Miss

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

WILLIAM T. SATTERFIELD, M.D., F.A.C.S.
General Surgery
McLemore Clinic
919 E. McLemore Avenue
Memphis, Tennessee

DR. T. E. ROSS
— SURGERY —
Hattiesburg, Mississippi

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians and Surgeons Bldg.
(899 Madison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
and Bronchoscopy
Princess Theater Building
Columbus, Miss.

W. L. WILLIAMSON, M.D., F. A. C. S.
Gynecology
915 Madison Avenue
Memphis, Tenn.

WILLIAM T. BLACK, M.D., F.A.C.S.
Gynecology
Medical Arts Building
Memphis, Tenn.

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham, Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg.), F.A.C.S.
Genito-urinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

DOUGLAS D. BAUGH, M.D.
—CLINIC—
Diagnosis—Internal Medicine
First National Bank Building
Columbus, Miss.

DR. H. RANDOLPH UNSWORTH
Practice Limited to Nervous and Mental Diseases
Hours: 1 to 5, by appointment.
10 to 12 on Saturdays
Office: 819 Maison Blanche Building.
New Orleans, La.

WALTER W. ROBINSON, M.D.
Crisler Clinic
1291 Union Avenue
Memphis, Tennessee
Specializing in
PATHOLOGY
ROENTGEN
DIAGNOSIS and THERAPY

DR. J. CASH KING
Practice limited to
RADIOLOGY
902 Madison Avenue
Memphis, Tenn. Telephone 6-7460

SHIELDS ABERNATHY, M.D., F.A.C.S.
HOWARD H. ASHBURY, M.D., Oncologist
CLINIC
For General Surgical and
Neoplastic Diseases
Complete Modern Radiological Equipment
1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING
I. G. Duncan, B.S., M.D., F.A.C.S.
J. S. Fleming, M.D.
GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION
Suite 1500-06 Commerce Title Bldg.
Memphis, Tennessee

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS, Clinical Pathology
MARJORIE WADE, Bacteriology

THE WOMAN'S CLINIC
W. T. Pride, M.D.
Carey Bringle, M.D.
James M. Brockman, M.D.
Gynecology Obstetrics
1460 Madison Avenue Memphis, Tenn.

R. T. NOWLIN, M.D.
Nowlin Clinic
Practice Limited to Surgery
1434 Hollywood Street, Memphis, Tennessee
Local and Long Distance Telephone, 4-1221

Compliments
JAMES W. BODLEY, M.D.
Memphis, Tenn.

ISAAC C. HUGGINS, M.D.
Practice limited to
UROLOGY and PROCTOLOGY
522-23 Standard Life Bldg.
Jackson, Miss.

DR.HENRY B. GOTTEN
INTERNAL MEDICINE
DIABETES
20 S. Dunlap
Memphis, Tennessee

T. E. WILSON, M.D.
Practice Limited to Internal Medicine
Office 522 Standard Life Bldg.
Jackson, Miss.

GEORGE GARTLY, M.D., F.A.C.S.
SURGERY and GYNECOLOGY
1014 Farnsworth Building
Memphis, Tennessee

JOHN C. HENTHORNE, M.D.
— Pathologist —
Mississippi Baptist Hospital
Jackson, Mississippi

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

EDWARD CLAY MITCHELL—QUINN CLINIC
1073 Madison Avenue
Memphis, Tennessee
Practice Limited to
Infant Feeding and Diseases of Children
Hours: 10:00 A.M. to 12:00 M.
2:00 to 5:00 P.M.
By Appointment Phone 7-1307

DUANE CARR, M.D.
Diseases of the Chest
Endoscopy — Thoracic Surgery
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee
Telephones: 8-3662; 2-3226; 2-2138

THE MEDICAL CLINIC
910 North State
Jackson, Mississippi
T. E. Wilson, M.D., Cardiology & Internal Medicine
George W. Owen, M.D., Allergy
John Bullock, M.D., Pediatrics: Allergic Diseases of Children
Gayden Ward, M.D., Internal Medicine, Gastroenterology
Robin Harris, M.D., Eye, Ear, Nose and Throat: Diagnosis.
Diagnostic Facilities: X-Ray, Electrocardiogram, Basal Metabolism Complete Clinical Laboratory.

MEDICAL, SURGICAL, DENTAL CLINIC
Drs. Whittington, Gaudet and Geisenberger,
405 Franklin St., Natchez, Miss.

Medicine
Surgery
Dentistry
Eye, Ear, Nose and Throat
Electrocardiography
Allergy
X-Ray Laboratory
Clinical Laboratory

HOYE'S SANITARIUM

"IN THE MOUNTAINS OF MERIDIAN"

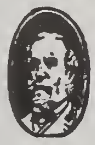
Meridian, Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital



Robert E. Lee Hotel

'The High Spot of Southern Hospitality"

Jackson, Miss.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

STEWART GAMMILL, Manager STEWART GAMMILL, Jr., Asst. Mgr.

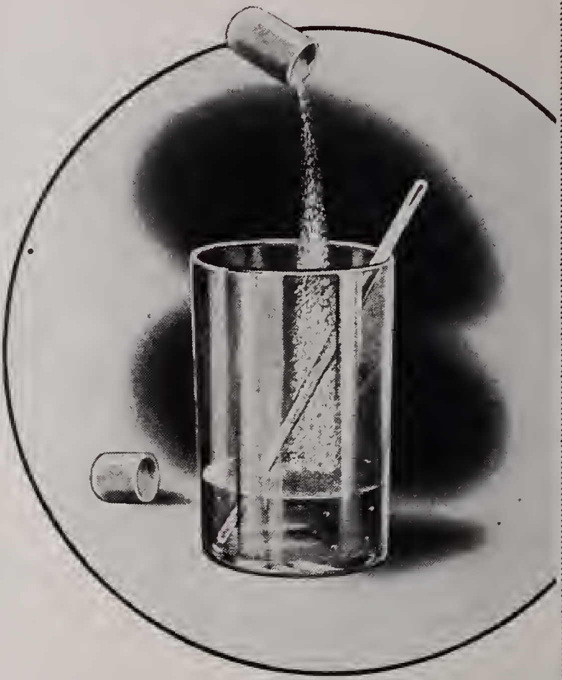
ROMSA-PULVIS

of Decisive Assistance
in the Treatment of

DIARRHOEA

and

ENTEROCOLITIS



Now available to the medical profession as a prescription item, ROMSA-PULVIS has been investigated and evaluated for more than two and one-half years by a Research Fellowship. Its characteristics, efficacy and non-toxicity are now fully established.

The chief constituent of ROMSA-PULVIS is a Bassorin gum of vegetable origin, having definite therapeutic value in a variety of intestinal maladies. Its action is absorptive and mechanical — an excellent demulcent for the whole alimentary tract, promoting normal peristalsis.

Efficacy Established
by Comprehensive Research and Clinical Tests

Laboratory and clinical experience have demonstrated the efficacy of ROMSA-PULVIS, indicated not only by the remission of the diarrhoea but by the increased feeling of well-being soon after administration.

You will be interested in the Memorandum regarding clinical tests and uses as compiled by the medical incumbent of the Fellowship. It will be sent you without obligation.

ROMSA-PULVIS is dispensed by leading pharmacists.

PHARMAX SALES CORPORATION

1 East 42nd Street, New York

When You Call On

MERCERE'S

YOU ARE GOING TO GET WHAT YOU WANT

A small item of supply needed in a hurry . . special office or hospital equipment to meet an emergency . . an Oxygen Tent to save a patient's life . . when you call on MERCERE'S in person, by phone, wire or letter, you have called on a Surgical Supply House that knows how to "come through" with what you want when you want it.

MERCERE'S

E. L. MERCERE, Incorporated

191 MADISON AVE. — MEMPHIS

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor

Telephone: 6586 221 North Farrish St.

Jackson, Mississippi

LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate

"DOCTOR"

We are looking forward to seeing you at our Exhibit
during the Mississippi State Medical Meeting
in Jackson — April 19 - 20 - 21

R. L. BURROUGHS, Representing

McKESSON ROBBINS INCORPORATED
Doster-Northington Division
Birmingham, Alabama

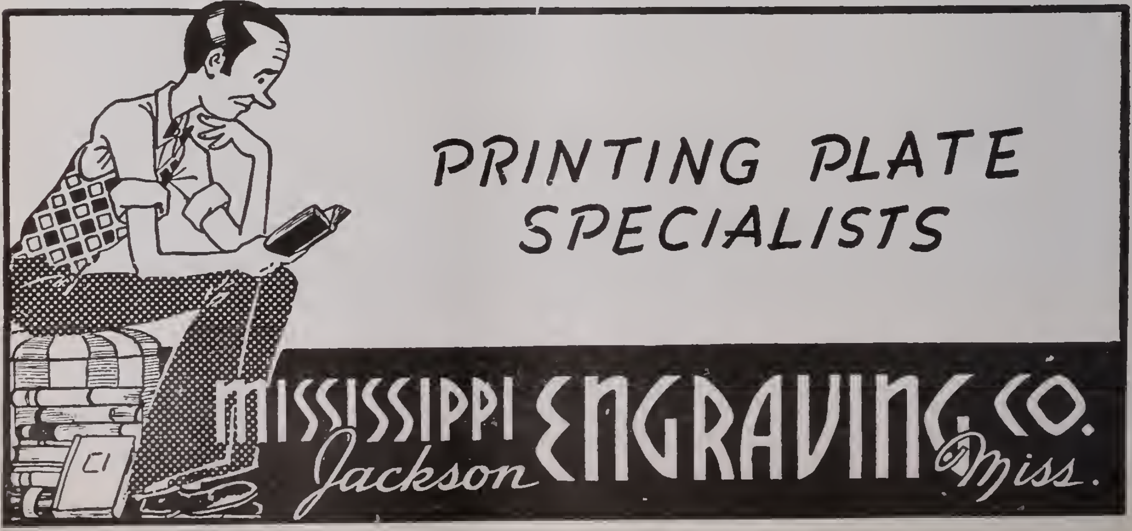
DO YOU NEED . .

- Prescription Blanks
- Laboratory Blanks
- Letter Heads
- Statements
- Envelopes
- Blotters

SPECIAL: 10,000 Prescription Blanks........$9.50

— Send your order to —

BOONEVILLE PRINTING CO., Inc.
Booneville, Miss.



Colloidal sulfur therapy helps to re-establish NORMAL METABOLIC STABILITY in ARTHRITICS
through the elimination of toxins. No reaction or ill effects take effect with the proper administration of

SULFUR DIASPORAL
(Doak)

. . . the original colloidal sulfur suspended in acid-free oil used more successfully in cases of chronic arthritis, sciatica, myositis, etc., than other methods of treatment. We make both Sulfur Diasporal intravenous and Sulfur Diasporal intragluteal.

Write for literature and reprints of important publications.

DOAK CO., INC.
Cleveland, Ohio

SOUTHERN SURGICAL SUPPLY CO., Inc.
531 Gravier Street—New Orleans

LOOK

for your old friends

ALWAYS AT YOUR SERVICE

Bob Schneider • Tony Schneider

●

Buy
Your
Stage
Equipment
From

LOBDELL SCENIC STUDIOS
Serving the South Since 1922
ROSEDALE, MISS.

THE TURNER-GOTTEN SANATORIUM
MEMPHIS, TENNESSEE, Route 6, Box 288
For the Diagnosis and Treatment of Mental and Nervous Disorders

Located on the Raleigh - La Grange Road, five miles east of the city limits. Accessible to U. S. 70 (the Bristol Highway). 53½ acres of wooded land and rolling fields. Equipment new and modern, including the latest equipment for physical and hydro-therapy. Special emphasis is laid upon occupational and physical therapy under the supervision of a trained attendant. An adequate nursing personnel gives individual attention to each patient.

C. C. TURNER, B.S., M.D.
Neuro-Psychiatrist

NICHOLAS GOTTEN, M.D., F.A.C.S.
Neuro-Surgeon

Advancing Years of Happiness

Advancing years of happiness — that's what it means to live with the conveniences and comforts of modern electric home service. For with every passing year new, thrilling aids to Better Living find their way into Mississippi homes. As a basic Mississippi Industry employing more than a thousand Mississippians, this company takes pride in its service — helping housewives to happiness in over 305 cities, towns and communities of the state.

MISSISSIPPI M POWER & LIGHT CO.

ADMINISTRATION BUILDING

BLUE MOUNTAIN COLLEGE

Blue Mountain, Mississippi

FULL MEMBER OF SOUTHERN ASSOCIATION OF COLLEGES

Write for catalogue and new booklet of campus views.

LAWRENCE T. LOWREY, PRESIDENT

Main Building

FENWICK SANITARIUM

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association—medical staff specially trained—clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds—homelike environments—located in the healthy and beautiful town of Covington, Louisiana—a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

THE N.Y. ACADEMY
OF MEDICINE
FEB 26 1940
LIBRARY

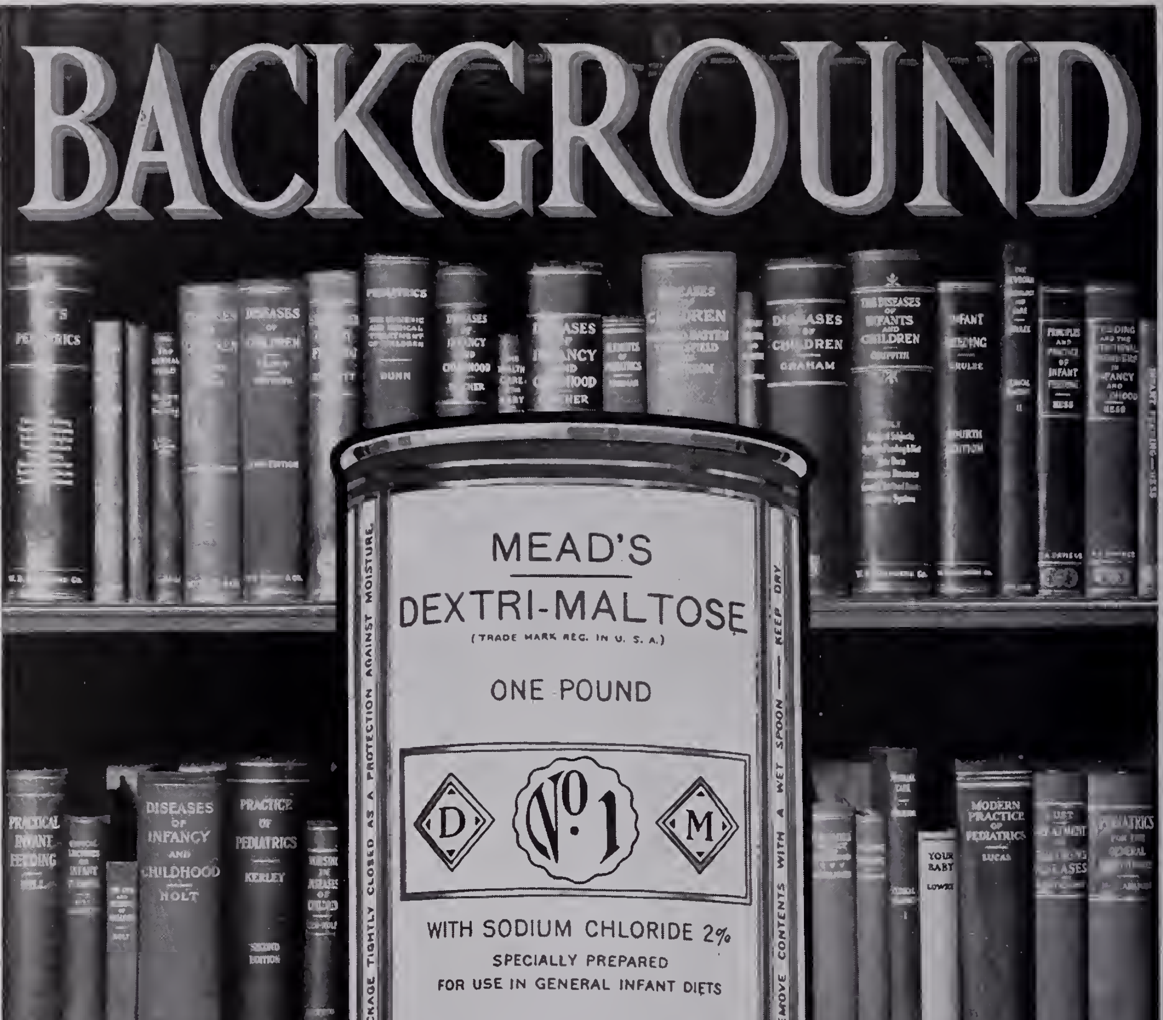
The Mississippi Doctor

VOL. 15. BOONEVILLE, MISSISSIPPI, MAY, 1938 NO. 12.

DR. J. PERCY WALL

JACKSON, MISS.

President-elect of the Mississippi State Medical Association. Dr. Wall is broadly educated, thoroughly trained in his specialty, sound in ideals of the profession, a splendid parliamentarian, and a ready and fluent speaker.


BACKGROUND
MEAD'S
DEXTRI-MALTOSE
(TRADE MARK REG. IN U. S. A.)
ONE POUND
D
No 1
M
WITH SODIUM CHLORIDE 2%
SPECIALLY PREPARED
FOR USE IN GENERAL INFANT DIETS
MEAD JOHNSON & CO.
EVANSVILLE, IND. U. S. A.
KEEP THIS PACKAGE TIGHTLY CLOSED AS A PROTECTION AGAINST MOISTURE
DO NOT REMOVE CONTENTS WITH A WET SPOON — KEEP DRY
DISEASES OF INFANCY AND CHILDHOOD HOLT
PRACTICE OF PEDIATRICS KERLEY
CLINICAL PEDIATRICS MORSE
DISEASES OF CHILDREN RAUE
DISEASES OF CHILDREN SHEFFIELD
PEDIATRICS

THE use of cow's milk, water and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

Mead Johnson & Company, Evansville, Indiana, U. S. A.

TREATMENT OF BRONCHIAL ASTHMA BY ORAL INHALATION
5 CC.
SOLUTION
5 CC.
ADRENALIN CHLORIDE
(P. D. & CO.) 1:100
FOR INHALATION ONLY, BY MOUTH.
USE IN ACCORDANCE WITH PHYSICIAN'S ADVICE.
NOT ADAPTED TO HYPODERMIC USE.
PARKE, DAVIS & CO.
SOLUTION
ADRENALIN CHLORIDE
(P.-D. & CO.) 1:100
PARKE, DAVIS & CO.

ADRENALIN CHLORIDE SOLUTION 1:100

THE oral inhalation of Adrenalin Chloride Solution 1:100 is promptly effective in relieving symptoms of bronchial asthma—in most cases results have been quite as satisfactory as those following hypodermic injection of the familiar 1:1000 solution. Nervousness and tachycardia, as well as other reactions which often accompany parenteral administration, are much less frequent following inhalation therapy. Discomfort and inconvenience of hypodermic injection are obviated by this new treatment.

Adrenalin is the Parke-Davis brand of Epinephrine U.S.P. Adrenalin Chloride Solution 1:100 is accepted by the Council on Pharmacy and Chemistry of the American Medical Association; it is supplied in 5-cc. vials, together with dropper for transferring the solution to a suitable atomizer, vaporizer, or nebulizer. The apparatus used must deliver a fine spray entirely free from drops.

PARKE, DAVIS & COMPANY · DETROIT

The World's Largest Makers of Pharmaceutical and Biological Products

THE DAY YOU FIRST INSPECT IT . . .

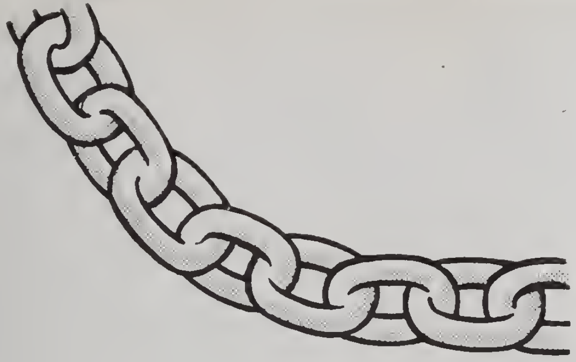
or after you've used it a year

The Pandex will impress you by its extraordinary flexibility, its many novel and eminently practical features, its utter dependability. Like the famed two-tube two hundred milliampere Fluoradex, the new single-tube sixty milli Pandex meets a definite demand. In the small hospital, where the scope of diagnostic x-ray work is limited, it serves adequately for every purpose. It is an excellent auxiliary unit to relieve major equipment for its specialized functions in the large institution.

The brilliant new Westinghouse Pandex is fully described in Bulletin No. 371. Your copy is waiting for you.

WESTINGHOUSE
X·RAY CO·INC·
LONG ISLAND CITY·N·Y·

THE DICK X-RAY COMPANY
MEDICAL ARTS BUILDING MEMPHIS, TENN.



UNITY

One of the basic assumptions of the entire methodology of science is that "unity is the desired quality."

What test is to decide which of the innumerable quantitative and qualitative representations of products possess a maximum of unity? Unity depends upon the proper definition of what physical reality means.

D'Abro expresses it in the sentence: "What we call reality reduces to the simplest co-ordination of the facts of observation." This definition is in accord with the Greek ideal of esthetic value. The Greeks, however, did not require experimental verification.

Physical reality changes from day to day but physical fact does not, except as it is more accurately determined.

Since 1856, more and more physical facts of manufacture have been more accurately determined in the Poythress Laboratories.

Our quality pharmaceutical products are guaranteed as to purity and identity in assay of raw materials; accuracy, cleanliness and perfection of production and uniformity and correct dosage of the finished products—all supported by laboratory control records for the protection of the medical profession and their patients.

Manufacturers of Fine Pharmaceutical Specialties

WILLIAM P. Poythress & CO., INC.
RICHMOND, VIRGINIA

Modern Treatment of Malaria

● Nowadays in the treatment of malaria it is possible to secure relief from the symptoms promptly, sterilization of the blood in a remarkably short period, and a relapse rate much lower than that seen formerly.

This can be accomplished with Atabrine. Furthermore, systemic symptoms of drug intolerance—tinnitus, vertigo, deafness, visual disturbances—are avoided. Atabrine is usually well tolerated by patients of all ages, during pregnancy and in blackwater fever.

A résumé of outstanding reports, culled from a comprehensive literature now comprising about 1200 papers, will be sent upon request.

HOW SUPPLIED: Tablets of 0.1 Gm. (1½ grains), in tubes of 15 and bottles of 25, 100 and 500; tablets of 0.05 Gm. (¾ grain) in bottles of 50 and 500. Also sugar coated tablets of 0.1 Gm. (1½ grains), in bottles of 25.

For cerebral and pernicious types of malaria, ampules containing 0.2 Gm. of sterile powder and 10 cc. sterile distilled water (for intramuscular or intravenous injection), in boxes of 5 ampules each.

WINTHROP

ATABRINE

WINTHROP

Reg. U. S. Pat. Off. & Canada

Brand of CHINACRIN

Methoxychlordiethyl aminopentylamino-acridine

Manufactured and standardized in the laboratories of the
Winthrop Chemical Company, Inc., Rensselaer, N. Y.

WINTHROP CHEMICAL COMPANY, INC.

Pharmaceuticals of merit for the physician

NEW YORK, N. Y. WINDSOR, ONT.

Factories: Rensselaer, N. Y. - Windsor, Ont.

WELCH'S SANITARIUM, Inc.--- Jackson, Miss.

ALCOHOLISM, DRUG HABITS, MILD NERVOUS DISORDERS treated. Special attention to limited number of problem children. Answering a keenly felt need in Mississippi, this modern sanitarium is under personal direction of Dr. R. R. Welch, former Supt., East Mississippi State Hospital and prior to that, Ass't. Supt., Miss. State Hospital, assisted by complete, highly trained staff. Excellent meals. Quiet, restful; beautiful surroundings; all outside rooms, private baths Inspection by the medical profession invited. Reasonable rates; write or telephone.

WELCH'S SANITARIUM, Inc., JACKSON, MISSISSIPPI

". . . and for restful comfort choose
the traditionally perfect service of

HOTEL GAYOSO"

C. C. Cartwright, Vice President and General Manager

MEMPHIS, TENN.

FAMOUS FOR YEARS

The Arms of Governor Gayoso

•

For an appetite treat at a sensible price visit HOTEL GAYOSO *Lobby Coffee Shop.*

•

LOW PRICED LUXURY

Single Rooms $2.00 up

350 ROOMS

Double Rooms $3.00 up

FREE PARKING IN GARAGE

3 Distinct Advantages

WITH THIS

THREE-VIAL PACKAGE

For the prophylaxis of Spring hay fever caused by grass pollens, the physician will find the 3-vial package—"Grasses Combined" Pollen Extract Squibb—a very desirable preparation.

IT IS CONVENIENT—no diluting nor mixing—just withdraw the required dosage from the vial and inject.

IT IS ECONOMICAL—there is enough solution in the 3-vial package for 19 doses for one patient—and it costs the physician only six dollars.

IT PERMITS FLEXIBILITY—which enables the physician to adjust the dosage in accordance with the patient's requirements.

The 3-vial package—"Grasses Combined"—supplies a total of 39,000 protein nitrogen units and contains equal parts of extracts from the pollens of Bermuda grass, June grass, orchard grass, red top, and timothy.

"Grasses Combined" Pollen Extracts Squibb are also available in 5-cc. vials and 15-dose Treatment Sets. The 5-cc. vials of "Grasses Combined" or of the individual extracts can be used with the Squibb Special Diluent Package (50% sterile glycerin solution) to prepare simple and stable solutions of pollen extracts as needed. A large assortment of Diagnostic Pollen Extracts is supplied in capillary tubes for skin-test purposes.

For literature giving concise and simplified dosage schedules, geographic pollen distribution, and information concerning the Squibb line of Pollen Extracts, address Professional Service Department, E. R. Squibb & Sons, 745 Fifth Avenue, New York City.

SQUIBB Pollen Extracts

MISSISSIPPI'S . . . only and most conveniently located Physician's and Surgeon's Supply House

AMERICAN SURGICAL SUPPLY CO.

323 E. Pearl St. Phone 1444
JACKSON, MISSISSIPPI

Let's Grow With Mississippi

Your Every Need Quickly Answered

- Surgical Instruments
- Physio -Therapy
- Belts and Trusses
- Rubber Goods
- Wheel Chair Rentals
- Hospital Furniture

Etc.

The Friendly Store of Dependable Service

— As Close As Your Telephone —

THE WALLACE SANITARIUM

MEMPHIS, TENN.

WALTER R. WALLACE, M.D. HUGH W. PRIDDY, M.D.

For the treatment of Drug Addiction, Alcoholism, Mental and Nervous Diseases.

Fully equipped for the care of patients admitted. Sixteen acres beautiful grounds.

Located in the eastern suburbs of the city at Southern Ave. and Cherry Road

The Draughon School of Commerce

JACKSON, MISS.

Mississippi's Oldest and Most
Modern Business School

A. S. McCLENDON, President

IN THIS ISSUE

PUBLIC HEALTH IMPLICATIONS OF THE CONTROL OF SYPHILIS
Joseph Earle Moore, M.D. 1

THE VALUE OF MYOMECTOMY
Hilliard E. Miller, M.D. 6

NEURASTHENIA
Carrol C. Turner, M.D. 9

FUNCTIONAL UTERINE BLEEDING
Conrad C. Collins, M.D. 13

EDITORIALS 15

NOTES AND OBSERVATIONS ON HEALTH SUBJECTS
W. A. Evans, M.D. 17

FROM DR. J. P. WALL 21

MOVES INTO NEW OFFICE BUILDING 21

NEWS FROM THE MEDICAL SCHOOL 22

COMING MEDICAL MEETINGS 24

ANNUAL MEETING OF AMERICAN PUBLIC HEALTH ASSOCIATION 24

THE COMMUNITY CLINIC 25

BOOK REVIEWS 25

THE HISTORY AND ADVANCEMENT OF MEDICINE
W. L. Little, M.D. 28

BIOPSIES
Leon S. Lippincott, M.D. 34

ESSENTIAL HYPERTENSION
James S. McLester, M.D. 39

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS 45

WOMAN'S AUXILIARY 72

MISSISSIPPI PHYSICIANS WHO DIED DURING 1937 75

WITH OUR ADVERTISERS

American Surgical Supply Co.	vii
Baptist Hospital, Jackson	xix
Bilhuber-Knoll Corp.	xix
Blue Mountain College	inside back cover
Courtesy Cards	xi, xii, xiii, xiv
Doak Co., Inc.	xv
Eli Lilly and Company	x
Fenwick Sanitarium	back cover
H. A. Phillips Artificial Limb Company	xviii
Hotel Gayoso	v
Hoye's Sanitarium	xvi
Lobdell Scenic Studios	xv
Lynnhurst Sanitarium	xviii
McKesson Robbins Incorporated	xx
Mead Johnson & Co.	inside front cover
Mercere's	xviii
Mississippi Engraving Co.	xx
Mississippi Power & Light Co.	xxi
Parke, Davis & Company	i
Pharmax Sales Corporation	xvii
Robert E. Lee Hotel	xvi
Southern Surgical Supply Co., Inc.	xv
Squibb & Sons	vi
The Dick X-Ray Company	ii
The Draughon School of Commerce	viii
The Hospital Service Corporation of Mississippi	75
The Turner-Gotten Sanatorium	xxi
The Wallace Sanitarium	viii
Welch's Sanitarium, Inc.	v
William P. Poythress & Co., Inc.	iii
Winthrop Chemical Company, Inc.	iv

Physicians are invited to specify Lilly Products on prescriptions because the Lilly trade-mark stands for:

1. Pure chemicals and high-grade basic materials.

2. The most improved methods of pharmaceutical and biological manufacture.

3. A policy of distribution and advertising that seeks to place emphasis on medical care where it belongs—the service of the physician.

Parenteral injection of 'Reticulogen' in pernicious anemia assures results, is convenient for the patient, and is economical. The cost per unit of antipernicious anemia principle is less than with many other preparations of liver extract.

'Reticulogen' (Parenteral Liver Extract with Vitamin B_1, Lilly) is supplied in 0.5-cc. (10-unit) and 5.0-cc. (100-unit) vials.

ELI LILLY AND COMPANY
INDIANAPOLIS, INDIANA, U. S. A.

Public Health Implications of the Control of Syphilis*

By JOSEPH EARLE MOORE, M.D.
BALTIMORE, MARYLAND

THE CONTROL of syphilis is based upon a number of fundamental and relatively simple propositions, as follows:

1. Syphilis is a prevalent disease.
2. Syphilis is a serious disease.
3. Syphilis affects chiefly the lowest income and younger age groups of the community.
4. Syphilis can be controlled only by treatment of the infectious person.
5. Infectious syphilis must be deliberately sought out.
6. When found, the infectious patient must be treated adequately (a) to control infectiousness and (b) to prevent the grave late sequelae of the disease.
7. The adequate treatment of syphilis is relatively expensive.
8. Since many patients are unable to bear this expense, treatment for them must be furnished at public cost.
9. Trained medical personnel is essential.
10. A control programme must have the backing and co-operation of the entire medical profession.

Let me elaborate on these points.

(1) Syphilis is a prevalent disease. The best available estimates indicate that approximately ten per cent of the adult population of the United States is infected. This statement has lost a great deal of its force through frequent repetition and, to a medical audience such as this, it is perhaps better to bring it home by reference to local rather than to general figures. Three states are concerned in this series of medical meetings—Mississippi, Tennessee, and Arkansas. These three states have a combined population of 6,964,000, of whom 4,949,000 are white and 2,015,000 are colored. In this population it is estimated by the United States Public Health Service on the basis of figures furnished by local physicians themselves that the annual incidence rate of fresh infections with syphilis is 5.4 per 1000. That is to say, in these three States, about 38,500 persons acquire syphilis each year, of whom approximately 19,000 are white and 19,500 negro. Moreover, the present trend of syphilitic infection is, so far as can be determined, upward, not downward. This is the magnitude of your local problem.

(2) Syphilis is a serious disease. Of patients infected and either untreated or improperly treated, it may be expected that 25 per cent will become partially or totally invalided, and that at least 10 per cent will die of syphilis. As the Public Health Service summarizes it, the disease "has terminated in the past in general paralysis (of the insane) in 2 to 5 per cent of all cases; contributes 11 per cent of the first admissions to institutions for mental diseases; becomes an economic problem in loss of time from employment, incapacity to death in the many cases (i.e., 10 per cent of those untreated or badly treated) which develop heart involvement; and in addition to being responsible for many other social disasters, is a tremendous factor in causing numerous fatal deaths."† These are facts of enormous sociologic and economic importance which concern physicians not only in their capacity as medical men, but also in their capacity as citizens and tax-payers.

(3) Syphilis tends primarily to be most widespread in the lowest income groups. Thus among the negro population of Mississippi, Arkansas, and Tennessee, the annual incidence of the disease is about 9.5 per 1000; among the white population it is only 4 per 1000. In both racial groups the incidence of syphilis decreases with improved economic status. Moreover the highest attack rates in both races and both sexes are between the ages

---

*Read before the Mid-South Post-Graduate Medical Assembly, Memphis, Tenn., Feb. 15, 1938.

‡From the Syphilis Division of the Medical Clinic, the Johns Hopkins Hospital and University.

†Parenthetical remarks mine.

of 16 to 30, i. e., at a time when earning capacity is usually lower than in later life.

(4) The medical approach to the control of syphilis involves the prevention of spread of the infection by means of treatment of the infectious patient. Vaccination, quarantine, extermination of insect vectors, purification of water, milk, and food supplies will not work for syphilis as they do for other infectious diseases.

(5) The control of syphilis therefore involves as its first major factor case finding, by which is meant an actual and organized search for persons with infectious syphilis.

Since the manifestations of early syphilis are often trivial, insignificant, do not make the patient ill, and are subject to misinterpretation by the patient himself and sometimes by his physician, we cannot rely for syphilis control on the treatment of voluntary applicants only. It is essential to search for patients with infectious syphilis by means of the epidemiologic investigation of contacts of all known infected persons. From the private practicing physician this epidemiologic investigation demands a public health point of view which only too often he has failed to hold in the past. Further, it often demands trained field investigators and social service personnel not at the disposal of the private practicing physician which must of necessity be furnished and supervised by state and local health departments.

(6) When patients with infectious syphilis apply voluntarily for or are brought under medical care by deliberate epidemiologic search, they must be given (a) immediate treatment to render them promptly non-infectious and thereby reduce the spread of the disease; (b) prolonged treatment to maintain the state of non-infectiousness, and (c) still more prolonged treatment to prevent the development in the individual of the grave, incapacitating, and often fatal late sequelae of the disease.

Immediate sterilizing treatment involves the use of one of the arsphenamines, which, in proper dosage, will render the patient for all practical purposes non-infectious for others within 6 hours.

To maintain this state of non-infectiousness, it is essential to give to all patients with early syphilis a minimum of 20 injections of an arsphenamine and 20 injections of a heavy metal by the continuous system. This involves 40 weeks—9½ months—of continuous treatment.

To prevent the serious late manifestations of the disease with fair certainty, these forty weeks of treatment should be extended to a minimum of 60 weeks—14 months—still by the continuous method, and during which at least 30 injections of an arsphenamine and 30 of a heavy metal should be given.

(7) The adequate treatment of syphilis is relatively expensive. It has been estimated that at the hands of a private physician, treatment adequate from the public health standpoint, i. e., the control of infectiousness, and the individual standpoint, i. e., freedom from late relapse and safety for the future, can hardly be furnished for less than $300. If similar treatment is given at public expense, the cost is still about $100.

(8) The patients to be treated in this manner fall, from the economic standpoint, into three categories: (a) Those who can pay for all of their treatment. This group makes up not more than 20 per cent of the total. Their treatment rests entirely in the hands of private practicing physicians who, if the effort to stamp out syphilis is to be successful, must know how to treat them properly and must be prepared to insist upon examination of contacts and marital partners. (b) A second group is made up of those who can pay for part of the cost of their treatment. These comprise perhaps 30 per cent of the total. Some of them will be handled entirely by private physicians who are willing to reduce their fee schedules to a point commensurate with the patient's reduced ability to pay. Some of them will be handled by part-day clinics, often associated with general hospitals. Some of them will be handled partly by each of these agencies, or by the totally free health department clinics. Only too many of them start treatment with a private physician but discontinue it as soon as their money is exhausted. Only too often has the private physician failed to recognize his community responsibility to ensure a continuation of the treatment of this economic group by himself, or by public agencies when the patient's funds are gone. (c) The third economic group includes those who are completely indigent and unable to pay anything toward the cost of their own treatment. This group, which comprises about 50 per cent of the total infected, must be treated at public expense. Such public treatment is absolutely obligatory, if for no other reason, so that infection shall not spread

from this under-privileged group to the rest of the community.

How much is the public cost, and whence will come the necessary money? Accepting the estimates that one-half of all persons infected with syphilis must be treated at public expense, and that the cost of adequate service for case finding and treatment is $100 per person, the three states of Mississippi, Tennessee, and Arkansas must look forward to an annual expenditure of about $1,900,000, almost equally apportioned between them—say $600,000 apiece. Some of this amount will come from private charitable sources, some of it from the Federal Government through grants-in-aid to states. The major portion of it, however, should and must inevitably, if syphilis is actually to be brought under control, come from the local tax-payers of municipality, county, and state, each in proportion to its own individual problem.

(9) Trained medical personnel is essential. This comprises three categories of physicians: (a) venereal disease control officers; (b) clinic physicians; (c) private practitioners.

The first qualification for the state and large municipal health departments, really desirous of controlling syphilis, is a full-time venereal disease control officer. This individual should combine in himself public health experience and wide clinical knowledge of syphilis, since he must deal not only with the public health problems raised by syphilis, but also with its diagnosis and treatment. He must serve as consultant to clinic physicians and private practitioners alike. Until recently there were almost literally no physicians qualified in both these fields. Within the past two years, however, training centers for venereal disease control officers and other physicians have been established, with the collaboration and support of the United States Public Health Service in several university centers in New York, the District of Columbia, Maryland, Tennessee, Ohio, Pennsylvania, Massachusetts, and California. The training course at the Johns Hopkins Schools of Hygiene and Medicine is designed primarily for present and future full-time venereal disease control officers. These training centers should be more widely utilized.

Health departments must of necessity operate venereal disease clinics, and these clinics should be staffed by physicians who are well trained in the diagnosis and treatment of syphilis. At present, the average health department clinic is usually under-manned and over-crowded, so that the under-paid doctor is literally unable to do anything else but give "shots," with little or no notion of what he is really accomplishing. Too often, the patient is treated only on the basis of a positive serologic test, with no knowledge by the physician as to whether the syphilitic infection, if really present, is early or late, whether he is dealing with primary syphilis or paresis. Clinics must be better housed and better staffed. The staffs must be better paid in order to attract better men. The staffs must be better trained, both in diagnosis and treatment, both in technique and practice. Most health department clinics would be markedly improved if the health department would arrange for special training periods at the medical centers now available for their own clinic personnel.

The private practitioner is responsible for all the syphilitic patients. The standards of diagnosis and treatment in private practice need to be measurably improved if the majority of private patients are to be handled even as well as in the poorest clinic practice. The experience of Gehrmann, of the du Pont Company, constitutes an indictment of the management of syphilis in private practice which American medicine would do well to ponder. The duPont Company does routine serologic tests on all new employees. Those with positive tests are not treated by the Company, but are referred to their private physicians. Listen to Gehrmann's story of what happens:

"Most physicians demand prices for treatment that are beyond the means of the individuals and out of reasonable proportion to their incomes. Some physicians maintain these high prices despite the fact that they are receiving arsphenamine, neo-arsphenamine, and bismuth free of cost from their state.

"Many physicians refuse to treat the referred cases, stating that no treatment is indicated, in spite of four plus Kahn and Wassermann reactions although the cases have never received adequate treatment.

"Numerous physicians refuse to admit that their patients have syphilis (again in the face of four plus Kahn and Wassermann reactions). This group denies the validity of blood tests and states that they have known their patients for years, and further know these same patients could not have contracted syphilis without their (the doctors') knowledge.

"On several occasions the attending physician has sent a blood specimen to a private or state laboratory and the report has come back that the reaction is negative. In every instance the results obtained by the company laboratory have been corroborated by subsequent check, but the attending physician has not always admitted that the patient has syphilis.

"Many cases are discharged as having had sufficient treatment, after three to ten injections of neo-arsphenamine without a heavy metal.

"Some have been reported as being well after a few mercury inunctions or a few intramuscular injections of water-soluble bismuth.

"Some are being treated with pills and nothing else."

For these private practitioners whose ideas of the modern treatment of syphilis are, as Gehrmann's comments suggest, still "in the horse-and-buggy age," the training courses at the university centers named are also open, and should by all means be utilized.

(10) A syphilis control programme must have the backing co-operation of the entire medical profession.

It must be kept in mind that syphilis is the only major infection, the spread of which in the community can be controlled alone by treatment of the infectious patient and by no other method. This fact makes it necessary for the public health authority to enter into the field of the treatment of disease in a manner unnecessary with any other infection. It is this fact which is responsible for the growth of free clinics for the treatment of syphilis, in large part sponsored by health departments. The establishment of such clinics on a comparatively small scale in the past and on an ever-expanding scale at present has led to a feeling of resentment on the part of many private practitioners on the ground that the state is entering into competition with the practitioner, is depriving the practitioner of income to which he is justly entitled, and is providing the entering wedge for the appearance of state medicine. This point of view has perhaps been especially widespread in the South.

The answers to these objections seem quite obvious. The Federal Government through the United States Public Health Service has done no more than to summarize information concerning the prevalence, incidence, and treatment of syphilis furnished by the physicians of the Southern states themselves, and of other parts of the country as well. The Southern states, including among them the three represented at this meeting, and like all the other states in the Union, have not controlled syphilis, largely by virtue of the fact that insufficient funds have been appropriated to public agencies from local governing bodies for this purpose. The private practitioner in the Southern states or elsewhere has given ample evidence over the past 150 years that he cannot control syphilis single-handed. As a matter of fact, it is unfair to ask him to do so. Since at least half of all the syphilitic patients to be treated can pay no part of the cost of their treatment, and a large proportion of the remainder only a small part of its cost, it is only to be expected that the private practitioner will object to devoting so much of his own time and his own money to the tedious treatment of wholly or partly indigent people.

To the mind of one who is interested in both private practice and the public health control of syphilis, as I am, there seems to be no danger that the setting up of adequate community facilities for syphilis control will in the least start the medical profession on the path toward state medicine. In my own opinion the private practitioner should welcome the relief which an adequate public syphilis control programme will give him. He need not fear the loss of patients. Anyone familiar with clinic practice in the treatment of syphilis knows that the syphilitic patient who can pay for all or part of his treatment will not submit to the overcrowding, the long delays, the publicity, the routinization, and the lack of personal contact with his medical advisor, which clinic treatment entails. The only patients who go to clinics are those who cannot afford to go anywhere else. What is needed in the syphilis control campaign is not curtailment of public facilities, but sweeping additions to them in every state in the country, the Southern states included.

There should be provided in all State Health Departments a Division of Venereal Disease Control, which is primarily syphilis control. Divisions of venereal disease control must everywhere provide adequate epidemiologic service available not only to state and municipal health department clinics and to clinics operated by privately endowed charitable agencies, but to the private practitioner as well. Such divisions of venereal disease control must also provide follow-up service with the important aim of holding the infectious syphilitic patient to treatment beyond the point of disappearance of symptoms, of restoration of health and working capacity, and up to the point of disappearance of infectiousness. Such venereal disease control divisions must provide clinic service, both free and part-pay; and must expand this clinic service to the point of taking care not only of all indigent syphilitic patients who apply, but of all of those who can be found by deliberate search. In most communities in the country, including my own State of Maryland and I assume also in Mississippi, Arkansas, and Tennessee, this will involve a three to four-fold expansion of existing facilities.

The medical profession and particularly the private practitioner must either whole-heartedly accept and co-operate with such a program as this, or suggest a satisfactory alternative. Unfortunately the combined wisdom of the medical profession in this or any other country has never succeeded in suggesting any satisfactory alternative and, indeed, there is none. Had it been possible for private practicing physicians to control syphilis, it might have been expected that the last 25 to 30 years since the introduction of modern methods of diagnosis and treatment would have seen a reduction in the incidence of syphilis. There has been no such reduction. On the contrary, all the available evidence indicates that in most parts of the country the incidence of the disease is either at a stationary level or rising slightly. Private practitioners have failed completely as individual public health officers, and failed after ample time and opportunity to demonstrate their ability.

The community demands, if the medical profession does not, that syphilis must go. The community refuses to submit longer to the loss of health, to the high death rate, to the misery which syphilis causes. The medical profession's part in the programme is to face the present difficult and disagreeable situation, to co-operate with community demand to the best of its ability, and to function largely through the part of the medical profession devoting itself primarily to the public health. Doctors generally must act as educators of their communities and as sponsors for the enormously increased appropriation of local public funds which will be necessary over a period of at least 25 years to control syphilis. The medical profession must prepare itself through the general practitioner adequately to handle those syphilitic patients who can afford to pay, and to accept the idea of public treatment of those who cannot.

The public health control of syphilis is not state medicine. If, however, a reactionary medical profession refuses to permit attempts to control this disease on the grounds that it is state medicine, it may find itself in the unhappy position of having hastened rather than impeded the advent of state medicine as it applies to all disease.

BIBLIOGRAPHY

1. Usilton, L. J., Trend of Syphilis and Gonorrhea in the United States, based on Treated Cases, Ven. Dis. Inform., 16:147, 1935.
2. Gehrmann, G. H., Syphilis in a Large Industrial Organization, Ven. Dis. Inform., 17'227, 1936.

◆

The Value of Myomectomy*

By HILLIARD E. MILLER, M.D.
NEW ORLEANS, LOUISIANA

WHY perform myomectomy? What is its scope? Of what value is myomectomy judged by its ultimate results? The answers to those questions are the gist of my brief in behalf of a procedure, which, to my mind, has not been given a fair trial.

Myomectomy has a very definite field of usefulness in the young woman between 20 and 38 years of age. At this interval of life, the possibility still exists, if the patient has been sterile, that she may fulfill her expectations of motherhood, therefore, conservation of the uterus has a significant importance. After 38 years, the scope of myomectomy is ended: The chances of conception are not likely and the value of conservatism is outweighed by the probable size and degree of degeneration of the growths and by the slight risk of recurrence. Notwithstanding the various reasons, physical, sentimental, and psychologic, which a woman past 38 years may possess for wishing to retain her uterus, hysterectomy is the wisest course.

Fibroids are rare before the age of 20, but at 35 years the incidence is estimated at 25 per cent. However, this percentage is difficult to determine clinically as many patients with fibroids never come to treatment. Of the number who have fibroids, one white woman in every twelve, and one colored woman in every eight. Unfortunately, in the colored race, the opportunity for myomectomy is extremely rare. In my experience in the colored gynecological wards of Charity Hospital, myomectomy was contraindicated in all but two cases. First, because of the high incidence of tubal infections and adhesion; and second, because the colored woman seldom seeks attention for fibroids until late in the thirties when the growths have become either so large or so numerous that it is impossible to do a conservative operation without extensive mutilation of the uterine wall.

Adnexal disease, which per se eliminates the likelihood of future pregnancy, contraindicates myomectomy in the woman under thirty-eight years, especially if the fibroids are so numerous that an extreme degree of uterine mutilation would result. Of course, if the patient with numerous fibroids, but normal adnexae, has already completed her family, the definite purpose of uterine conservation is nullified, and hysterectomy is indicated.

The symptoms of fibroids in the young woman are frequently insignificant. It is not uncommon for the patient to seek treatment for sterility alone, giving no symptoms of fibroid in her history. This was our experience with 41 patients in a series of 128 myomectomies reported a few years ago. There had been no symptoms other than sterility because the growths were of the intramural or subperitoneal type which did not interfere with the health of the endometrium, and therefore, did not disturb the normal behaviour of the menstrual cycle. To these 41 patients, who were included in a group of 69 patients regarded as possible candidates for pregnancy, myomectomy brought not only the coincidental effect derived from preservation of the uterus, but a 33 1-3 per cent conception.

When fibroids do produce symptoms, myomectomy offers almost complete relief. Evidence is furnished in our series that dysmenorrhea was primarily due to fibroids in 52 per cent, for allowing operation, dysmenorrhea persisted in only 0.52 per cent. Menorrhagia was a preoperative symptom in 63 per cent, but postoperatively in only 9 per cent. Preliminary curettage revealed hyperplasia of the uterus in 48 per cent. Curettage should always precede myomectomy, in order to eliminate the hyperplasia commonly associated with fibroids, and also, to remove any coexisting polyps. A normal menstrual flow was eventually established in 91 per cent of the cases after myomectomy, although in most instances, two or three months elapsed before the periods became regular as to duration, character, and amount.

---

*Read before the Wisconsin Travel Club at New Orleans, La., Feb. 10, 1938.

It is always a comfort to be able to offer a young woman the definite advantages of myomectomy for the relief of symptoms caused by fibroids; to be able to point out that if the growths do recur at forty-three, or forty-four years of age, she will not have to submit to further surgery, as more conservative measures will then be applicable; and that in the meantime, she will be relieved of dysmenorrhea and menorrhagia, and given a 33 1-3 per cent chance of conceiving. The incidence of recurrence of fibroids in our series was 3.08 per cent, and was in that group of patients who could be treated by conservative methods, such as radium, for the relief of symptoms.

Too frequently, the surgical approach to fibroids is radical because the surgeon fails to understand the true character of the tumor and lays too much stress upon the likelihood of infection or malignant degeneration. Neither of these factors should influence the surgeon's decision as to myomectomy. The risk of infection is so slight it can be ignored. Never, in my experience, have I seen an infection originating primarily from within a fibroid; if infection does exist, it has occurred through extension of an inflammatory process in the tubes or ovaries. In our series of myomectomies, three cases of sarcomatous degeneration within the growth were reported by the pathologist. These were localized and well-circumscribed, microscopic areas with no evidence of metastasis, and, according to the follow-up, there has been no recurrence.

Degenerative changes do occur in fibroids and are activated by factors which diminish or completely block off the circulation to the growth. Trauma, twisting of the pedicle, compression, all predispose to partial or complete thrombosis of the vessels, and lead to the various graduations of retrogression such as hyaline, granular, cystic, red, and calcareous changes. But the presence of degenerative changes is not a contraindication to myomectomy.

Neither should the size and number of fibroids in the uterus of a young woman deter the surgeon from attempting the conservative procedure. We have enucleated from one uterus as many as forty growths varying in size from ½ cm. to 26 cm. in diameter. Involution to normal size often appears unlikely in a uterus from which many small fibroids or several large ones, have been removed, and yet pelvic examination three to four months after myomectomy reveals that the uterus has returned to within normal limits, or to very near normal limits.

Good judgment should be used in making incisions into the uterus. Often fibroids close together in the uterine wall may be enucleated through the same incision. Splitting the capsule of the fibroid allows the operator to determine the line of cleavage and to remove the growth leaving the capsule. This permits careful closure and perfect hemostasis in the pocket left by the growth. No hesitancy should be felt in incising the endometrium, or even in enucleating through the anterior wall a fibroid present in the posterior wall, provided the entire endometrium is carefully approximated so far as possible. Bonney removes almost all fibroids on the posterior wall by making an incision first on the anterior wall, and then a further incision through the posterior endometrium. In this way, the danger of adhesions which might occur from incisions in the posterior wall is definitely reduced.

Bleeding during operation can be notably minimized by placing ring forceps on each uterine artery. However, when all growths are removed, it is always a good plan to release the forceps and inspect the incisions minutely to make certain there is no bleeding or active oozing. Formerly, it was considered axiomatic to drain all myomectomy cases in anticipation of bleeding from incisions in the uterine wall. Now, this is deemed unnecessary; with careful and intelligent suturing of the incisions, no postoperative ooze or bleed-need be feared.

Operative interference for fibroids during the course of pregnancy is not justified, unless circulatory disturbances in the growths precipitate an acute surgical abdomen and demand immediate attention. If the growth is pedunculated, the surgical problem is comparatively simple; but with the intramural type, operative attack inaugurates profuse bleeding which taxes the ingenuity of the operator, particularly if the offending fibroid is near or upon the site of placental implantation.

Many women with fibroids conceive, carry a pregnancy normally, and deliver without undue dystocia. In these cases, circulation to the fibroid is maintained during pregnancy and the growth rises out of the true pelvis, producing no obstruction during labor. Fibroids do interfere with normal uterine contractions and prolong labor; the pains are not of good tone, not truly expulsive in character, but there is no absolute mechanical interference. The difficulty is evident but not insurmountable.

Operative interference has been indicated in only seven cases in our experience, which is a fairly small percentage of the total number of patients with pregnancy and associated fibroids. There was no mortality among these seven, and five, or 71 per cent, continued to full term without incident. There need be little fear of rupture of the uterus during labor after myomectomy. So far only three cases have been reported, whereas, many women have had three to five subsequent pregnancies without mishap. My policy has always been to treat fibroids complicating labor expectantly, and to meet any emergency arising at term in an intelligent way. If the growths do not obstruct the bony canal, the case delivers normally. Should obstruction occur, then Caesarian section with myomectomy, or hysterectomy at term is indicated.

Comparison of our mortality rate for myomectomy with the rate of other clinics for complete and supravaginal hysterectomy is most favorable. In a series of 140 cases, only one death occurred, a mortality of 0.71 per cent, in contrast to the rates of from 3 to 5 per cent reported for the radical operation. I feel that the secret of restricting the mortality, and incidentally the morbidity following myomectomy, is the degree of care exercised in surgical details: Limiting the number of incisions in the uterus; hemostasis without undue tension of the sutures; and, so far as possible, peritonealization of incisions, in order to obviate the formation of adhesions to coils of bowel or to adjacent organs. The entire time allotted for this paper might well be consumed in enumeration of the minute care which is essential in surgical details during a myomectomy.

For the percentage of morbidity in the first 128 cases of our series, I feel that some apology is due. Intestinal obstruction as a serious complication occurred in two patients, or 1.5 per cent, during the hospital stay; in 0.75 per cent, it occurred subsequently as a complication of pregnancy; and in 0.75 per cent as a chronic partial obstruction. The technique of myomectomy has been so vastly improved within the past five or six years that complications of this sort are almost completely avoided, and we are glad to say that in the last cases of our series there were none. Proper hemostasis and asepsis, and preservation of sufficient peritoneum, enable the operator to close the incisions in the uterine wall in such a manner that there is very slight possibility of adhesions to the bowel.

In conclusion, may I presume again to recommend myomectomy in all women with fibroids under the age of 38 years. I believe that myomectomy gives definite assurance that symptoms will be relieved; that the patient will continue to menstruate in a normal way, and that the tremendous psychologic effect from conservation of the uterus will be maintained. I believe that myomectomy will promise a 33 1-3 per cent chance of future conception, with only a 3 per cent chance of recurrence of the fibroids; that a good percentage of women sterile because of fibroids will be offered the hope of a family. And I believe that myomectomy will prove to be just as safe, or even safer, than a more radical procedure.

Neurasthenia

By CARROL C. TURNER, M.D.
Associate Professor Neurology and Psychiatry,
University of Tennessee
MEMPHIS, TENNESSEE

NEURASTHENIA belongs to that subdivision known as the Actual Neuroses. Before discussing neurasthenia it might be well to outline as briefly as elucidation permits just what neurosis actually is and what causes it to occur in certain individuals. A concise exposé of the subject is difficult owing to the many theories as to the actual causes of neurosis. One common ground which none of these theories denies is that some sort of constitutional predisposition, the so-called hereditary factor, must exist and be conceded as a potent influence. Regardless of any of the other theoretical approaches it is a known fact that one individual will succumb to a condition which will produce a neurosis while another individual subject to the same conditions will escape. To portray an example of the above, one man loses a leg, promptly gets an artificial limb and returns to work. Another sustains a similar accident, gets himself a tin cup, and henceforth sits on a street corner begging alms. The predisposing factor then presents itself in the light of a constitutional susceptibility to neurosis and the following constitute the various theories in an attempt to explain why the neurosis actually occurs:

1. The biological approach deals with the instinctive reactions of the individual in his relation to the social group. Every individual is endowed with the faculty to react in a certain manner to given situations without having had previous experience in these situations. This has been referred to as the primary instinct or phylogenetic memory. In physiologic terms the reaction governed by this primary instinct is regarded as inherited reflexes, just as habits are spoken of as acquired reflexes. The struggle by the individual and the group is often very keen and he who is unable to mold his conduct to the interests of the group flees from reality in an attempt to evade the demands of life. Not only may this occur during the periods of great social stress such as those cases which occurred relative to the World War, but also in the lesser vicissitudes of life in which the individual is unable to adjust himself to love life, procreation of children, and the numerous demands of the social and economic order in which we live.

2. The organic or pathologic approach assumes that in every neurosis there is some physical or biochemical change in the cerebrospinal and vegetative nervous systems. Supposedly when this is the organic situation endogenous or exogenous toxins, exhaustion, infection, trauma, physical commotion, or excessive perverted sexual practices may induce neurosis. Also may be mentioned sudden mental shock caused by intense fear or terror, emotional stress as the result of prolonged worry, excitement and anxiety as contributors to numerous predisposition causes.

3. The physiologic theory assumes the existence of organic changes in the nervous system with particular reference to functional disturbance of the brain whereby there is an interruption of the normal flow of centrifugal and centripetal stimuli resulting in paralysis and anesthesias. Or there may be a release of lower level mechanisms from the control or inhibition by the upper levels resulting in the sexual picture of hysteria and behavior patterns of more or less automatic origin, and of bizarre patterns.

4. The behavioristic theory holds that all behavior results from physiologic responses or condition reflexes. Training and experience alone can only account for the proper direction of these reflexes. That is, conditions outside the body can be established as stimulators for certain physiologic pathways and, so to speak, make or untake a neurosis. For instance, hysteria is a purposive flight into

sickness making use of biologically performed mechanisms. The most common view regarding the behavioristic theory is that neurosis is the result of suggestion by which is meant the ready acceptance by the individual of ideas without proof which are often contrary to reason. Suggestibility is more marked in some individuals than in others, and so the value of psychotherapy as a part of treatment in the neurosis becomes evident.

5. The glands of internal secretion have been accused in the production of neurosis. It is true that some cases with a typical neurosis show signs of endocrine imbalance. On the other hand, many of the symptoms of neurosis are identical with symptoms resulting from endocrine disturbances and, therefore, the importance of the endocrines in the production should be weighed carefully after thorough chemical and laboratory investigation has been carried out. For the present at least it were best to consider the disturbances of the glands of internal secretion only from the physiological point of view and not interpret them in the psychological terms of the neurosis.

6. The vegetative nervous system has been closely linked with the function of the glands of internal secretion and with the emotions. Vagotonic symptoms are frequent in the neurotic and exemplified by the vasovagal crisis first described by Gowers and which so closely simulates anxiety neurosis.

7. Psychoanalysis has its followers who form staunch backers for this approach. This is an enormous subject and any attempt to give its many intricate phases is not in the scope of this paper. A few very brief remarks is a strained attempt to explain its mechanism in the production of a neurosis. First, a neurosis is a repetition of infantile situations. Second, the seat of the pathologic processes is in the sexual sphere. Third, the disease is precipitated by an external factor in the adult life inducing withdrawal from reality into fantasy. This fantasy is an expression of a regression of psychosexual development which is termed the fixation of the libido. Fourth, the profound importance of the ego in the individual.

Freud divides the neuroses into actual neuroses and psychoneuroses. By the former he means those neuroses in which, aside from the immediate or precipitating psychological factor, there is actual, even if temporary, physical or physiologic disturbance within the organism. In this group he includes neurasthenia. By psychoneuroses he understands those neuroses which illustrate the various stages of regression to infantile points of fixation. Under this head are classed the transference neuroses, which include: (1) conversion hysteria; (2) anxiety hysteria; and (3) compulsion neurosis.

Symptoms: The symptoms of neurasthenia are mainly subjective, and consist essentially of abnormal fatigability and exaggerated irritability. The neurasthenic shows both physical and mental exhaustibility. He gets up tired in the morning, feels better as the day progresses, and often regains full vigor before going to bed. The excessive muscular weakness and tendency to fatigue on slight exertion hamper normal activity and make volitional effort painful. The mood is depressed, the patient is irritable, gloomy, introspective and sensitive, cannot tolerate noises, and feels acutely all painful and disagreeable stimuli. He cannot concentrate, complains of poor memory, which in reality represents poverty of attention, cannot keep up prolonged or creative work, and is unable to make decisions. He complains a good deal of physical ailments which cannot be verified by physical examination. Headache, or rather a feeling of pressure on top and back of the head and a bandlike sensation about it, is a common complaint, and so is pain along the spine, particularly between the shoulder blades. The headache is especially apt to be severe in the morning and to wear off as the day progresses. Dizziness is not so common.

The muscular weakness may affect the eye muscles, resulting in asthenopia, or tiredness on reading. Sometimes there are spots before the eyes. The general motor weakness, which never amounts to paralysis as it sometimes does in hysteria, results in general tremulousness or fine tremor of the fingers and tongue. The patient is unable to fall asleep and lies awake for hours; but despite the fact that his sleep is subsequently not disturbed he is too tired to get up in the morning. He may also have the desire to sleep by day. The patient sometimes complains of blood rushing to the head, of a general feeling of heat or cold, of sweating on emotional excitement, or that the hands and feet feel cold. The pulse is generally labile and frequently rapid. So-called orthostatic tachycardia, in which the pulse becomes disproportionately rapid on rising from a reclining to a standing position, is not uncommon. Occasionally one observes extrasystoles, palpitation or lively pulsation of the abdominal aorta. The blood pressure is labile, generally low. The cardiac condition is sometimes designated neurasthenia cordis and possibly represents disturbance in the innervation of the heart. The condition known as neurocirculatory asthenia may belong to this picture as well as to hysteria.

The sexual disturbances color the whole picture of neurasthenia. Aside from the fact that masturbation frequently is the main causative factor, the neurasthenic keeps up the practice and thereby the whole vicious circle. He constantly reproaches himself, wonders whether the action will be his undoing, persistent but futile erections at night, spermatorrhea on slight stimulation by day, ejaculation at stool, and partial or complete impotence. Withal, the neurasthenic has increased sexual appetite. He dreads failure in anticipation of coitus, has deficient erection after the emission. It should be added, however, that many persons who present the picture of so-called "chronic" neurasthenia are not and never have been masturbators and yet are more or less impotent.

Treatment: The success in treating neurasthenia depends not only upon the cooperation of the patient but also upon an earnest zeal and sympathetic attitude by the physician. No less important is the ability of the physician to observe keenly and read the patient's personality. A neurasthenic demands more time and should be given more time by his physician than the majority of organic cases. The psychotherapeutic effect upon the patient of the ability of the attending physician to listen with interest to all of the patient's many subjective complaints is of inestimable value. He who would dismiss the complaints of the neurasthenic by discrediting his symptoms and telling him that he was just suffering from " a little neurosis" is destined to meet with failure in the management of these cases. The neurasthenic's symptoms are very real to him and they occupy his sole interests. This concentration upon himself is in itself sufficient to block his efficiency in a workaday world or his physical comfort in the home. Therefore, too much emphasis cannot be laid upon the importance of a careful and painstaking and interested conference with the patient every time he contacts the physician.

A detailed history not only concerning the present illness for which the patient seeks relief, but also of the whole life of the patient is necessary. Not uncommonly must some informant be sought in or outside the patient's family to give such supplemental data of the patient as is necessary to complete the picture, for in the study of a case of neurasthenia we are dealing not only with physical symptoms but with a pattern of life and inheritance which has had a major part in the production of the disease. Therefore, the proper concept of the neurasthenic means the ability to visualize the kind of person he is and what have been his reactions over his life's span in certain situations to which he has been subjected. One's knowledge of human nature and an intuition in observing personality traits is of tremendous assistance in such an approach. The next item of importance is the evaluation of symptoms by a careful physical study not only of the patient's nervous system but also of all the systems, for there are many organic affections that may simulate neurasthenia, and there are many neurasthenics that may simulate organic disturbances or there may be an organic disease whose symptomatology has become aberrant and confused by the accession of neurasthenia to complicate the picture. Among the affections more commonly confused with neurasthenia is paresis. The tremulousness of this disease together with the easy mental and physical fatigability, loss of interest, and decreased ability to concentrate may lead the clinician to the conclusion that he is dealing with a functional disturbance. The importance of spinal fluid examination is readily understood. Dysthyroidism, especially those types associated with thyrotoxicosis, may suggest neurasthenia and are frequently difficult to distinguish from neurasthenia early in the course of the affection. The weakness and atony of the muscles in myasthenia gravis with the atony and sluggish digestive tract may be mistaken for neurasthenia. In the former, a myasthenia gravis reaction of Jolly to the faradic current is more or less typical. Myasthenia gravis is also more common in the earlier years of life. These few references are intended to stress the importance not only of careful judicial study of the subjective symptoms but also of a painstaking clinical investigation. It has been said that the functional case has had more clinical investigation than the average organic case. This is just as it should be for the success in the treatment of neurasthenia depends preeminently upon the detailed precision with which the case has been studied.

When the subjective symptoms and objective findings have been promptly evaluated in their relation to each other and when the diagnosis of neurasthenia is unquestionable the next approach in the course of treatment consists of a frank discussion between the patient and the physician of those situations in life which have been responsible for the production of the neurasthenia. At this time the physician should have had the opportunity to establish rapport with the patient to the extent that they meet on a common ground of complete abandon with all the bars down and the curtains up exposing completely the intimate life of the patient. It must be remembered that the management of neurasthenia is primarily the management of a malajusted individual and secondarily the management of the physical symptoms of which he complains. Not until the patient feels that the physician understands him wholly will there be any turn in the course of the affection. In the meantime it is not only indicated from the physical standpoint, but a good psychotherapeutic régime to treat the patient's medical symptoms. This should consist of a supportive line of treatment with sufficient sedation at regular intervals to produce profound relaxation and rest. This may be supplemented by physiotherapy in the form of continuous baths, massage, and electrical stimulation of these muscle groups suffering chiefly from fatigability.

To stimulate the appetite and promote assimulation, insulin may be used in dosage not exceeding 5 units from 20 minutes to one-half hour before meals. Occupational therapy is of inestimable benefit. The type of occupational therapy best suited for the particular case depends upon the degree of depression, fatigability, and bradypsychia of the case. Outdoor games are important if not too strenuous and not too long complicated to discourage the patient's interest. It must be remembered that the neurasthenic suffers a feeling of inadequacy and failure even if diversion tends to intensify this symptom. Manual crafts of various types are helpful, for they demand the concentration and interest necessary to divert the patient's interest away from himself. Organic preparations, generally speaking, have been disappointing in their results and have been given far too great emphasis in their benefits among the profession at large. We find that the cases benefited by the various organic preparations are in the minority aside from the psychotherapeutic effects derived from the patient's knowledge that something is being given him in the way of medical treatment. We feel that until neurasthenia is considered more of a psychological problem than a physical problem that medical treatment of his physical illness is putting the cart before the horse. For this reason, the neurasthenic too frequently seeks relief from the charlatan and the mystic whose medical attempts are nil but whose power of suggestion is profound.

Functional Uterine Bleeding*

By CONRAD C. COLLINS, M.D., M.S., F.A.C.S.
NEW ORLEANS, LOUISIANA

BY FUNCTIONAL uterine bleeding is meant abnormal bleeding, either in quantity or periodicity, or both, in women in whom no local or constitutional factors are demonstrable. This condition is usually found at the two extremes of menstrual life, puberty and the menopause, and though the physiopathological changes are identical in each, the methods of treatment differ vastly.

PATHOLOGIC PHYSIOLOGY

Investigation usually reveals failure of the ovulatory mechanism, manifested by unruptured atretic follicles and cystic degeneration of the ovary. There is a lack of ovulation and corpus luteum formation, and consequently, absence of the progestin effect on the endometrium, namely differentiation. The endometrium in the majority of cases shows hyperplasia and cystic changes, the so-called "Swiss cheese pattern." However, functional bleeding has been observed from an endometrium that is atrophic, and also, but rarely, from a normal secretory endometrium. With this multiplicity of conflicting endometrial findings, the true cause of the bleeding remains speculative. Some investigators claim that there is a "special bleeding factor," but this theory is rapidly losing many of its adherents. Others claim that there is a special "bleeding level" for each individual endometrium, just as each kidney has its individual level at which it will excrete sugar. Irrespective of the immediate cause of the bleeding, we do know that in the majority of cases of functional bleeding there is a lack of the corpus luteum hormone and that nearly all these cases respond to proper hormonal therapy. Whether this is accomplished by luteinization of the atretic follicles with its subsequent effect on the endometrium in the form of differentiation, or whether it is due solely to a neutralization of the excess estrogenic hormone in these atretic follicles, or to both, is a moot question. Probably both factors influence the result.

FUNCTIONAL BLEEDING OF PUBERTY

In a number of women, puberty is ushered in with profuse bleeding, coming at irregular intervals and continuing for varied periods. In some, the interval varies from two to five weeks with profuse bleeding lasting from seven days to three to four weeks; while in others, the flow is almost continuous, lasting as long as two or three months. Clotting, which is never normal, is almost invariably a concomitant. Dysmenorrhea may or may not be present. The patient usually shows a marked secondary anemia, sometimes having bled to such a degree that the blood count is as low as 1,500,000 cells per cu.mm., and the hemoglobin 50 per cent.

Formerly, these patients were treated by immediate transfusion, vaginal packing, and curettage, the curettage in a number of cases having to be repeated at frequent intervals; and occasionally, radium in small doses, or even hysterectomy, was restored to. Today, in the treatment of functional bleeding of puberty, the curet is rarely needed, radium applications are a rarity, and hysterectomy is almost unheard of.

The following method of treatment is in vogue in the Department of Gynecology at Tulane University. The patient is given a thorough physical examination, including a rectal examination to rule out any pelvic pathology. A complete blood picture is made and in this manner the degree of anemia is determined and blood dyscrasias ruled out. A basal metabolic rate determination and a Wassermann test are made, as hypothyroidism sometimes complicates the picture, and syphilis, though rarely, is a cause of menorrhagia and metrorrhagia in women.

Endocrine therapy is started immediately and as the large majority of these cases show a lack of the luteinizing hormone and the evidence of prolonged estrin stimulation, an attempt is made to correct this imbalance by the administration of the luteinizing hormone or by the administration of the corpus luteum hormone per se. The author favors the use of the former as this hormone stimulates the ovary, whereas the latter is purely substitutional. One c.c. of antuitrin—S, the anterior pituitary-like hormone, is given intramuscularly daily for four or five doses, and in the majority of cases will control the bleeding immediately. Twenty-four days following the first injection, the series is repeated, and twenty-four days following the first day of the ensuing menstrual flow, a repetition of the series is again made. This is continued until five series of injections have been given when medication is discontinued. By this time, as a general rule, a cycle normal as to regularity, duration, and quantity of flow, is established and no further treatment is needed. If the patient fails to respond to the first series, (and the number who do fail to respond is exceedingly small), curettage is performed, but twenty-four days following the curettment, hormonal therapy is instituted and carried out as above. Hemopoetic stimulants in the form of iron and ammonium citrate are given in dosages of 60 grains to combat the secondary anemia, and are continued until the blood count reaches within the normal range. Patients with a lowered metabolic rate are given small doses of thyroid daily, usually $\frac{1}{4}$ grain twice a day. Once a normal type of menstrual cycle is established, all forms of medication are discontinued, and unless there is a relapse, which is not very frequent, there is no need for repetition of them.

---

*Read at Tulane Post-Graduate Clinics, Hutchinson Memorial, Tulane University, New Orleans, Nov. 23, 1937.

Under this therapeutic régime, we have been successful in curing nearly all of our cases of functional bleeding in younger women. Radium at present in women of this age has very little, or no place in our therapeutic armamentarium, nor have we had to resort to the use of hysterectomy to control bleeding.

Cases having a positive Wassermann should receive antiluetic treatment. We have had no experience with the use of snake venom, Congo Red, or low voltage irradiation of the ovaries or pituitary gland, or both, as measures to control bleeding, and consequently, cannot discuss the efficacy of these types of treatment.

FUNCTIONAL BLEEDING AT THE MENOPAUSE

At the other extreme of the menstrual life of a woman, (40 years of age or over), a different problem arises. Here we are confronted with women who are approaching the menopause, in whom ovarian or uterine function means little, and consequently, we do not believe that hormonal therapy has any place at this age unless it is the estrogenic hormone given for the amelioration of climacteric symptoms such as hot flushes and dizziness, and not for bleeding. At this age we see not only a large number of cases of functional bleeding, but we see cases of early cancer of the cervix and cancer of the fundus of the uterus, or cases with small intramural fibroids or fibrosed uteri, which conditions can only be differentiated by the use of the curet and microscopic examination of the curetted material. I can only emphasize that patients showing increased bleeding at the menopause should have a diagnostic curettage, and should the scrapings prove the presence of a carcinoma, a hyperplasia of the endometrium, or should a small fibroid or a fibrosed uterus be found, then radium or hysterectomy will be most efficacious. Whether the hysterectomy is abdominal or vaginal, of course, depends upon other conditions such as prolapse or fixation of the uterus, which do not come within the scope of this paper.

CONCLUSIONS

1. Formerly, patients with functional uterine bleeding at puberty were treated by packing of the vagina, repeated curettage, radium, or hysterectomy. Today with the advent of hormonal therapy, a minimum number of patients of this age require curettage, and it is only the occasional cases that need radium or hysterectomy to control bleeding.

2. At or near the menopause, an increase in bleeding is never normal and our first therapeutic measure should be curettement of the uterus. Should the bleeding be the result of early carcinoma of the cervix, then massive doses of radium are used. Should it result from fibrosis of the uterus or hyperplasia of the endometrium, or a small fibroid, a sterlizing dose of radium or a hysterectomy is the better plan of treatment.

3. Hormonal treatment has no place in the correction of bleeding at the menopause, and if hormones are used at this stage, it should be the estrogenic hormone given for the relief of the nervous or vasomotor symptoms that appear at this time, and not for the relief of the hemorrhagic feature.

209 Medical Arts Building,
New Orleans, Louisiana.

THE MISSISSIPPI DOCTOR

The Journal with a vision, the delivery of modern medicine to the masses at less cost to the individual and more profit to the practitioner. The champion the small hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D., Editor-in-Chief
MILDRED P. ANDERSON, Assistant Editor

OFFICIAL ORGAN OF
Mississippi State Medical Association
Mid-South Post-Graduate Medical Assembly

LILA SINCLAIR, Blue Mountain College, Artist
DAVID E. GUYTON, Blue Mountain College, Poet

Mid-South Post-Graduate Medical Assembly

EDITORS:

E. M. Holder, M.D.
C. M. Speck, M.D.
F. M. Acree, M.D.
C. R. Crutchfield, M.D.
H. King Wade, M.D.
Dewell Gann, Jr., M.D.

Mississippi State Medical Association

Joe E. Green, M.D. .... President
J. Percy Wall, M.D. .... President-elect
T. M. Dye, M.D. .... Secretary

EDITORS:

Leon S. Lippincott, M.D.
L. V. Rush, M.D.
G. S. Bryan, M.D.

COUNCILORS:

J. W. Lucas, M.D.
L. L. Minor, M.D.
R. B. Caldwell, M.D.
Thomas J. Brown, M. D.
Lawrence W. Long, M.D.
H. Lowry Rush, M.D.
J. Gould Gardner, M.D.
W. H. Frizell, M.D.
D. J. Williams, M.D.

Published monthly at Booneville, Mississippi

Annual subscription $1.00.

Entered as second-class matter, January 19, 1926, at the post-office at Booneville, Miss., under the Act of March 3, 1870.

The next meeting of the Mississippi State Medical Association goes to Gulfport and there is no more delightful place to meet any where than our own Mississippi Coast. The sea breezes are so invigorating, the fishing is so fine, the beauties so captivating, the doctors there so cordial and so generous, we look forward with keen anticipation.

Dr. W. L. Little, of Wesson, now retires to the rank of past-presidents of the Mississippi State Medical Association, but not until he rounded out a most successful term as its chief executive. Our state association had one of its most successful years under his leadership. His professional dignity, his sincere interest in every good cause of the association, his kindness of heart, and fine sense of justice to every noble effort put forth by individual members of the association, activated growth and inspired more determined progress. Good results will follow for years the premeation of his spirit from the tenure of his office. We are sure the association will still have his active interest and aid.

Dr. G. S. Bryan, of Amory, is creating a lot of interest in the treatment of pneumonia, or the lack of treatment as it stands now. He is urging vaccine therapy and further study of the problem. He is doing a fine service and in our opinion his efforts will result in much good.

The next meeting of the Northeast Mississippi Thirteen-County Society will be held at Iuka, the home of its splendid president and one of the most cultured and delightful little cities in Mississippi.

"Painful Feet" was the subject of a paper at the recent state meeting by Dr. Thomas H. Blake, of Jackson. It was one of the most practical ever read before a medical audience and it is very timely. The essayist believes that ninety per cent of foot pain can be relieved by properly fitted shoes, "long enough, wide enough and low enough" being the chief essentials. Dr. Blake thinks it is time to fit the foot instead of the head. Painful feet is in the field of the orthopedic surgeon, but yet it is a condition in which the entire profession could render much service to the people. We have discussed in this journal over and over the relation of the ill-fitted shoe to preventive surgery and to mental and physical efficiency. It has a strong relation to state medicine. We have been too prone to overlook the every day ills in the field of both surgery and medicine. Just think of the bunions, the ingrowing toe nails, the calluses and deformed toes that call for thousands of dollars' worth of surgery that could be so easily prevented, and at the same time the general physical and mental health could be greatly improved. Dr. Blake is to be highly commended for this practical paper with its far-reaching possibilities.

Dr. Menville's paper on "Carcinoma of the Cervix" was one of the best we have heard. It is fine for some one to have the information he has on the subject. But even so it is too sad that we need the type information he brought us, in part at least. At one time we thought the Wertheim operation was the answer to advanced cancer of the cervix. It was not and neither are high pressure x-ray machines and great quantities of radium that are not practical for the masses.

The last session of the Mississippi State Medical Association, we believe, was one of the most successful ever held. The kind, sincere and co-operative spirit of president W. L. Little permeated the membership. President-elect Dr. Joe Green activated enthusiasm, while the chairmen of the sections provided a program, well-balanced, practical and helpful. The exhibitors, both commercial and scientific, added their important part. The Central Medical Society under tne leadership of the able organizer, Dr. Harvey F. Garrison, left nothing undone to add to the comfort, the pleasure and the profit of the guests. The wholehearted spirit of Jackson concentrated its finest courtesies and good will on this meeting, especially the hotels. The sports-lovers were accorded every kindness by the local medical society and the city. The daily papers were generous.

But scientific lectures and the annual fellowship were pretty well eclipsed this year by what we can identify only as Jackson hospitality. In addition to a natural yen to go to Jackson every time opportunity affords, this time advance intimations from the Harvey F. Garrisons, the H. R. Shands, the Frank Hagamans and the Carter O'Ferralls set us to packing the obliging portmanteau with no little anticipation. We arrived in good humor, welcoming the capital city's morning freshness and awakening bustle. Greetings throughout the day confirmed an over-plus of fraternalism. But we were soon to find that the city which points to the hospitable Old South of Natchez, the culinary excellence of New Orleans, and the bracing grandeur of the Coast, can interpret hospitality in overtures, can turn an ascetic into an Epicure, and can bestir us with so much activity we shake recession talk off like dewdrops from the lion's mane.

The inimitable Garrisons spread the mat of welcome with such graciousness, "open-house" can never again be the everyday gesture of friendliness we've believed it all these years. It is rather a confluence of ourselves at our best, a loving cup, a festival, and instead of a dish of tea for refreshment, a collation so tempting 'twould out-do a queen's fancy.

The second evening, the Shands-Hagaman-O'Ferrall coefficiency returned us to the Old South, tinging its receding memories with a roseate glow, picturing its past filled with light and laughter, in a presentation so pleasing the pageant might easily have been voted the highlight of the week. The students of Belhaven College were presented in this spectacular pageant of Southern loss and achievement. A dramatization of the Lost Cause, its aftermath and the courageous rebuilding of a new South culminated in tne beautiful metaphorical union of the Old and the New South. The tableau effects and musical arrangements throughout the presentation were exceptional. Following the pageant was a colored motion picture, accompanied by interpretation, of the famous Bellingrath gardens of Mobile. Then the lower rooms of the spacious and stately Shands residence were thrown open for a reception as brilliant as the most exacting traditional idealist might claim for Southern hospitality.

The recent meeting of the Mississippi State Medical Association, held in Jackson, was a most successful one. The attendance was full and the interest was enthusiastic. Every thing possible was done by the Jackson doctors to make the occasion pleasant as well as profitable to the visiting physicians. The commercial and scientific exhibits were unusually good and numerous. The contributions by the exhibitors aided very much in caring for the necessary expense of the meeting. Hotel facilities were ample and the charges for same were very reasonable. Fraternalism and harmony prevailed throughout the entire time. The sessions were well-attended and the papers and discussions were both instructive and pleasing. Some of the nation's best-known men and teachers were on the program and contributed much to the value of the meeting. Among these we will mention, first, Dr. Jas. S. McLester, ex-president of the A. M. A., who delivered the Ewing Fox Howard Oration. This oration is an annual event and is delivered on the night of the public session. It was preceded by addresses of welcome, responses to same and the president's address. Each of these addresses were appropriate and timely. As usual Dr. W. L. Little, the retiring president, spoke words of wisdom. Dr. Little has been in active service for about forty years. He has been a regular attendant and a faithful worker for the advancement of scientific knowledge and organized medicine. The association honored itself when it honored Dr. Little with the presidency. Dr. Little will not cease to work and feel deep interest in the association's affairs since holding the highest honor attainable as a member. But, on the other hand, he will be found in the front ranks of private service and ready to give wise and timely advice to the younger men. Incidentally, it is to be hoped that these younger men may follow his example and work without an idea of rewards or honors, being willing to wait for same until ripe years and long service shall have proved desert.

Drs. Bagwell, of Knoxville, and Ownesby, of Atlanta, contributed to the section of hygiene and public health. Their addresses were very good but did not overshadow those made by our own state members who contributed to this section. Drs. Semmes and Rychener, of Memphis, presented discussions in the section on eye, ear, nose and throat. Both of these discussions were able. Again these visitors were well-matched by home talent. In the section on general medicine, Dr. Brown, of the Mayo Clinic, discussed "deficiency disorders of the intestinal tract." This address was timely, since we believe that many of our departures from normal health may be traced to deficiency. Of course, Dr. McLester dwelt on this feature in his oration on the night previous. We do not think the profession holds a more able man along such related subjects than Dr. McLester. Dr. LeJune, of New Orleans, presented a "moving picture" demonstrating "hoarseness" in a most interesting and instructive way. But the papers read by Drs. Boyd, Archer and Baugh were, in our thinking, "gems of purest ray." Dr. Boyd's paper—"The Management of Obstetric Cases Outside of Hospitals," was more discussed and praised, perhaps, than any paper read during the meeting. He did not claim that better work could be done in homes than in hospitals, but since the vast majority of such cases must, of necessity, be cared for in homes, he contended that every effort should be made to carry scientific measures and procedures into the homes of these patients. He, also, confined these procedures to common sense, stressing above all else, the fact that the least departure from nature's methods was safest, therefore, best. Dr. Archer's paper on coronary thrombosis was very fine and was exceedingly well presented. Dr. Baugh did exceedingly well in the presentation of the cardinal points in diagnosis and classification of heart disease. Dr. Menville of New Orleans, discussed carcinoma of the cervix—a good discussion of a subject of which but little is known. May God and the members of our profession who are capable of true thought, hasten the day when the secrets of this awful destroyer of human life and happiness—CANCER—shall be uncovered and brought to light. Then, perhaps, the questions involved in the technique of present day approach to this great killer will attract less attention, and the nature and cause of cancer, having been determined, prevention, rather than cure, will be our objective. Dr. Blake, of Jackson, read a sensible and practical paper on painful feet. We wish every woman in Mississippi might have heard this paper. Dr. Lapham, now of New Orleans, gave a good paper on "Breach Presentation," but the "Making of a Surgeon" by Dr. Isidore Cohn, of New Orleans, was a literary production of beauty and it expressed the true philosophy of the genuine surgeon. There were other good papers in this section by our home talent that demonstrated the fact that, while it is pleasant to have out-of-state men on our programs, that we have equally good men at home. Having attended this meeting and having heard the papers and discussions there I am made the more to wonder how any man who has the interest of his clientele at heart and the desire to keep abreast of the times, can willingly absent himself from regular attendance.

Notes and Observations On Health Subjects

Made In South Africa In 1937

By W. A. Evans, M.D.

VACCINATION TO PREVENT PNEUMONIA IN SOUTH AFRICAN MINES

In 1935 the South African Institute of Medical Research published a bulletin on the prevention of pneumonia. The title of this publication was "The Epidemiology of Pneumonia on the Witwatersrand Goldfields and The Prevention of Pneumonia and Other Allied Acute Respiratory Diseases in Native Labourers in South Africa by Means of Vaccine," by Sir Spencer Lister and Dr. David Ordman with the following relative papers: "Prophylactic Inoculation Against Pneumonia and other Acute Respiratory Diseases with Vaccine on the Randfontein Estates Mine," by Dr. P. A. Peall, and, "Pneumonia in the Native Mine Labourers of the Northern Rhodesia Copperfields With an Account of an Experiment in Pneumonia Prophylaxis by Means of a Vaccine on the Roan Antelope Mine," by Dr. D. A. Ordman. Since these papers were written there have been three years of added experience. The writer is in a position to know that the experience of these three years has confirmed the earlier experiences and that this method of preventing pneumonia is in wider use in South Africa now than it was when these papers were written. In addition it is generally understood that the U. S. Army gave the method extensive trial in 1936-37, and based on their experience have made a far more extensive trial in 1937-38. This report should become generally available before the onset of the 1938-39 pneumonia season.

Pneumonia is the outstanding menace to life among labourers in South Africa mines. At times in certain mines the pneumonia death rate of labourers has gone higher than 10 per thousand. That is more than the total death rate from all causes among people of all ages in some American communities. So great a death rate has caused at times great alarm among government agencies, chambers of commerce and mine managements. In 1912 Sir Almaroth Wright, fresh from his successes in fighting typhoid, was invited to come to the assistance of the Rand Mines; and in 1913 Dr. W. C. Gorgas—his great work in Panama accomplished—was asked to come to South Africa and lend his aid. Following the visit of Sir Almaroth Wright, a Research Institute was founded and Sir Spencer Lister and others began research in the bacteriology of pneumonia and in prophylaxis against the disease. Following the visit of General Gorgas great advances were made in housing and in working conditions.

The methods used to control pneumonia in South Africa are therefore based on experience and experiment lasting more than a quarter of a century. When pneumonia is as prevalent and as fatal as it was among these groups conditions highly favorable to the disease must be presented.

The labor in these mines is composed of negroes from the bush, most of whom have never before lived or worked anywhere except in scattered family groups. A fair percentage of them were from tropical sections and many had always lived in tropical low country before they went to work on the relatively high cold African plateaus. They were young males, practically all of the pneumonia age. At the mines the custom was for the labor to live in compounds or dormitories. The underground work was done in deep mines.

If the pneumonia rate could be improved under all these conditions then there should be no great difficulty in improving it under more favorable conditions. However, there are present factors generally missing when efforts to control pneumonia are made.

The environment as to working and home conditions were in the hands of brainy men clothed with authority, and when pneumonia control was made a part of mine policy orders could be enforced.

The results of the experience has been quite satisfactory even though the methods employed have had to be changed more than once.

The pneumonia death rate in 1929 in the worst mines was 11.5 per 1000 and in the best over 0.75. The average was 5 per 1000. In 1934 the worst mine had a pneumonia death rate of 11 and an average rate of 3.5 prevailed in all the mines. This included mines where the labor was not vaccinated against pneumonia as well as those where vaccination was done.

A fair idea of the efficacy of vaccination is shown by comparing one mine where all employees were vaccinated and where the pneumonia death rate fell from a little over 8 to a low of about 4.2, with an unvaccinated mine in which there was practically no drop at all. In a general way it was held that statistics showed that vaccination reduced the pneumonia death rate to about one-fourth the old level.

The Vaccine Used

Effort was made to manufacture a vaccine from organisms which caused the prevailing pneumonia among the particular people in the current season. It has been demonstrated that the organisms responsible for pneumonia change from season to season.

The material used for the manufacture of vaccine were lung juice, blood and sputum.

(A) Lung Juice

To obtain lung juice, a syringe with a long needle was employed. The needle was passed deep into the consolidated lung through the chest wall, and a few drops of juice was planted on human solid blood agar and then incubated at 37°C. for 24 to 60 hours.

(B) Blood

One or two cc. of blood was drawn from a vein at the bend of the elbow. It was inoculated into 200 cc. of broth and incubated at intervals of 24 hours. Some of this blood culture was placed on solid agar and incubated in the same way as was done with the culture from lung juice.

(C) Sputum

A specimen of sputum as free as possible from contamination in the mouth and upper air passages was coughed directly into a sterile receptacle. The specimen was inoculated on solid human blood agar and cultured. A microscopic examination of the sputum was made as well as a visual examination, for whatever light on the case these could show.

(D) Lungs

In fatal cases of pneumonia the lungs were placed in a clean vessel and sent promptly to the laboratory where cultures were made after the manner used with lung juice

The pneumococci obtained were tested for bile solubility and typed by the agglutination method. After they had grown on human blood agar for 15 to 18 hours the pneumococci cultures were seeded into trypsinated bullocks heart broth medium, containing one-half of one per cent glucose and the same percentage of normal horse serum. The inoculated broth put in one-litre bottles was incubated at 37° C. for 7 to 9 hours. The cultures were closely watched to see when they had reached the maximum growth and to prevent autolysis from going too far. The intent was to get young, vigorous cultures in which autolysis had not gone too far.

At this point the pneumococci were separated from the broth by careful centrifuging, care being taken not to handle the organisms roughly. The growth from 40 to 50 litres of broth was suspended in one litre of sterile normal saline. This was partially sterilized by heating for one hour at 60°C. and then 1 per cent phenol was added and the whole properly diluted.

Streptoccocci

Streptococci removed from the cultures were transferred to broth and grown for 24 hours. They were then separated by centrifuging. Since this organism does not neutralize the lysins, some of the precautions taken with pneumococci were not necessary.

Other Organisms

The staphylococcus aurea, micrococcus catarrhalis, bacillus influenzae and Friedlander bacillus used in the mixed vaccine were grown from the lung juice material on solid media and were killed by heat and then suspended in normal saline.

The various properly diluted suspensions were then mixed in suitable proportions and the final vaccine was adjusted to contain 0.5% phenol. They were then controlled for sterility, after which they were ready for use.

The vaccine was made from young, vigorous bacteria, properly grown and potent at the time they were made into vaccine.

The authors insist that the technique used be accurately and minutely followed. They cite failures in the use of vaccine, in one case in India particularly, because a wrong technique was made use of.

Constitution, Dosage and Mode of Inoculation

As a result of a four-year period of study made prior to the adoption of the vaccine at present used against pneumonia the authors say that the following organisms are associated with pneumonias; pneumonocci of various strains; hemolytic and non-hemolytic streptoccus hemolytic staphyloccus aureus, micrococcus catarrhalis, bacillus of Freidlander and B. influenzae.

They include all of these in their vaccine. All the prominently prevailing strains of pneumococci were included.

Their vaccine contains 11,000 million organisms per cc. and has the following constitution:

Pneumococcus	A	1000 Millions per cc.
Pneumococcus	B	2000 Millions per cc.
Pneumococcus	C	1000 Millions per cc.
Pneumococcus	E	1000 Millions per cc.
Pneumococcus	K	1000 Millions per cc.
Pneumococcus	R	1000 Millions per cc.
Pneumococcus	S	1000 Millions per cc.
Pneumococcus	T	1000 Millions per cc.

(The strains of pneumococci they designate by letters instead of by numbers.)

Streptococcus Pyogenes, 500 Millions per cc.
Streptococcus Salivarius, 200 Millions per cc.
B. Influenzae (Pfeiffer), 500 Millions per cc.
M. Catarrhalis, 200 Millions per cc.
Staphylococcus aureas, 500 Millions per cc.

As has already been indicated it is the opinion of the authors that the bacteriology of pneumonia is undergoing frequent change. Therefore it will be necessary to change the constitution of the vaccine from time to time.

In fact at the beginning of every pneumonia season the prevailing disease should be studied bacteriologically and the vaccine to be used in that season should be based on the findings.

So too does the bacteriology of the pneumonias change as we pass from one region to another. Therefore the constitution of the vaccine to be used in one country should be based on the bacteriology of the pneumonias of that country.

The authors are disposed to think that their vaccine contains bacteria that are unnecessary. They are endeavoring by experimentation to decide which bacteria they can eliminate without lessening its effectiveness.

Method of Use

1 cc. of vaccine is inoculated subcutaneously into the pectoral region, followed at weekly intervals by two further doses. In negro mine workers this course is given when the man signs his labor contract and starts to work. The reaction, local and constitutional, is very slight, not enough to interfere with work. If the man remains in the employ of the company he is revaccinated one year later.

There is some reason for thinking the period of complete protection is a short one. There is even a suggestion that in order to prevent pneumonia over a period extending from October to May it may be advisable to inoculate a second time during the pneumonia season. The season during which the mine worker especially requires protection, is the two months after he comes in from the bush to begin life in more congested quarters and to work under environmental conditions new to him. Unless vaccinated he is especially prone to pneumonia during this first two months. Therefore he is always vaccinated on starting work, unless there are urgent reasons to the contrary. Whether or not he is to be re-vaccinated is less important.

On the other hand there is some evidence that some protective influence from vaccination persists for a long time. Natives who have been vaccinated and worked for a season in the mines and then gone back to the bush and eventually returned to the mines under new contracts are less prone to pneumonia than others who have never been vaccinated.

The present opinion is that the pneumonias are caused by bacteria which infect the lungs as they travel from the air passages to the blood stream. In effect the lungs act as a filter which temporarily or otherwise keeps the invading organism from reaching the blood stream.

Man is one of the few animals that is subject to this type of lung filtering process. In three or four species there may be a similar reaction but in none is the process exactly the same as it is in man. This peculiarity has made it difficult for research students to learn about pneumonia in man. It has also added greatly to the difficulties in developing a specific curative treatment.

Since this process through which pneumonia develops is incidental or accidental, it might be said, partly physical and partly biological, pneumonia has not a definite physical or clinical type. The differences between lobar pneumonia and coalescing bronchopneumonia are not fundamental. The bacteria of the pneumonias vary greatly. Anyone of a considerable number of organisms may be responsible for the disease.

Cole says that the pneumonias of the great influenza epidemic of 1918 were streptoccal. Lister and Ordman attribute much of the pneumonia of Africa to streptoccocci. Even the same organism is liable to vary greatly—some of the variations amounting to change in type. Lister and Ordman call attention to the lack of fixedness of the type of organisms and even the clinical type of the disease in pneumonia as compared with the fixedness of typhoid fever and its organisms. These authors leave the impression that the real basic cause of the pneumonias, and especially influenzas, belongs to the virus family and that the various bacteria found present in these diseases are secondary invaders, some, however, of prime importance.

None of the papers in this bulletin deal with the curative treatment of the disease.

The Method Used In The Roan Antelope Mine

In September, 1937, Dr. Mottoulle, of Union Miniere, Congo Belge, wrote to the management of Roan Antelope Copper Mine located in Northern Rhodesia asking what had been their results from the use of pneumonia vaccine; how long had they used it and how did they make it and how did they use it. Mr. Ayer, the general manager, sent me a copy of Dr. Rodger's reply dated Sept. 28, 1937.

The following is a brief analysis of Dr. Rodger's letter.

1. At Roan Antelope they have around five thousand employees on whom pneumonia vaccine is systematically used as a preventive. Vital statistics show a material decrease in the

number of cases of pneumonia and of deaths from the disease since the use of the vaccine was begun.

2. The date of the commencement of employment of this vaccine was August 31, 1931. Therefore the results represent an experience of six years duration.

3. The method is similar to that used by Drs. Lister and Ordman in Johannesburg, both in making the vaccine and in administering it.

Some of the other points found in his letter were:

(a) Prior to June, 1924, the prevailing organism found in the lungs of pneumonia cases was one of the various strains of streptococcus. Most of the cases were of the bronchopneumonia type.

(b) In 1934 they had a severe epidemic of pneumonia. It was found that the flora of the disease had changed. Pneumococci were isolated from the majority of the cases.

(c) When this discovery was made the vaccine was changed. Since then it has contained principally pneumococci of Types I, II and III, and group IV.

(d) With this change the vaccine again gave satisfactory results.

(e) The vaccine used is a "community autogenous vaccine," the sources being the same as those used in Johannesburg to-wit: lung juice, blood and sputum.

(f) The technique of preparation is that described by Lister and Ordman.

(g) By growing pneumococci for more than 7 to 9 hours in broth practically all of the polysaccharid becomes free in the medium. (This point is of especial interest in the light of the experiences of Felton).

(h) Stock cultures of pneumococci and streptococci are kept in the dark at room temperature in 10% blood broth. To maintain virulence these cultures are regularly put through mice or other susceptible animals.

(i) On the signing on of each recruit 1 cc. of the vaccine is inoculated subcutaneously, followed by two further doses of 1 cc. each administered at weekly intervals. There is usually only a mild reaction.

TO THE MEMBERS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

Gentlemen:

From a heart filled with gratitude, for the wonderful help you have given your retiring speaker of the house of delegates of the Mississippi State Medical Association during his six-year tenure of this office, and the signal honor you have conferred upon him in elevating him to the position of president-elect, he wishes to thank you, and to assure you that the happiest friendships of his life have been formed in the association.

In thanking you, the hope is expressed that such expressions may not prove to be empty words, but an earnest of the sincere desire to prove worthy of the trust that has been imposed, realizing that such an honor does carry great responsibility.

The prime duty of the president-elect as set forth in the by-laws of the association are as follows:

> "The president-elect shall be in charge of the work of organization, under the direction of the president, and shall direct and advise with the vice-presidents and councilors in this phase of the work . . . "

With this mandate, your president-elect hopes to visit every medical society in the state, conferring with you as to the best methods of increasing our work and its effectiveness.

Therefore, will you please confer with the president of the association when you desire him and the president-elect to visit with you?

Sincerely
J. P. Wall, President-elect.

DR. FRANK ACREE MOVES INTO NEW OFFICE BUILDING

The streamlined simplicity, restful decorations, and modern equipment of the new Shelby Street office building of Dr. Frank Acree are the latest step in Greenville's progress as a medical center of the Mid-South. Dr. Acree and his associate, Dr. J. W. Williams, were in the new building today, receiving alternately patients and visitors all during the day.

The modern architecture with its casement windows permits excellent lighting. An attractive interior is decorated throughout in a combination of soft cream walls, ivory woodwork and brown tile-tex floors that is extremely restful as well as beautiful.

A comfortable waiting room, brightened today with congratulatory flowers, has attractive furnishings and handsome indirect lighting equipment. On the two front wings are the offices of Drs. Acree and Williams with adjoining treatment and rest rooms. Dr. Acree's office includes a small library with built-in shelves.

Eight treatment rooms, a sterilizing room with the latest modern equipment, an electric sterilizer for linens and instruments; an X-ray room with all new equipment; clinic laboratory and scrub-up room for minor operations and adjoining recovery room; lavatories; colored waiting room and entrance; and a concrete ramp ambulance entrance at the rear are other features of the building.

Dr. Acree plans to have the grounds landscaped as soon as the finishing touches have been completed. He also plans to have an asphalt parking space on the north side of the building.

An automatic control convection type of heating system has been instilled which will maintain an even temperature. The ceiling is made of insulated gypsum materials. Venetian blinds will be put up throughout the building.

Besides Dr. Acree and Dr. Williams, the staff consists of Mrs. Margaret Clements and Miss Concetta Muffuletto and Mrs. M. McLaughlin.

NEWS FROM THE MEDICAL SCHOOL

Miss Ross Jeffress, librarian in charge of the Rowland Medical Library, announces the addition of the following new books to the collection available for the use of the students, faculty and physicians of the state: (Books are loaned to non-resident physicians for a period of two weeks, the postage being paid by the borrower).

Allen, Edgar: Sex and Internal Secretions; A Survery of Recent Research. 1934.

A. M. A.: Glandular Physiology and Therapy, A Symposium Prepared Under the Auspices of the Council on Pharmacy and Chemistry of the A. M. A. 1935.

Ariens Kappers Comparative anatomy of the nervous System. 2v. 1936.

Barborka, C. J.: Treatment by Diet. 3rd ed. 1937.

Beatty, R. T.: Hearing in Men and Animals. 1936.

Beers, C. W.: A Mind That aFound Itself; 1935.

An Autobiigraphy by C. Beers. 5th ed. 1937.

Berglund, H.: The Kidney in Health and Disease in Contributions by Eminent Authorities. 1935.

Best, C. H.: The Physiological Basis of Medical Practice. 1937.

British Medical Journal: Treatment in General Practice. The Management of Some Major Medical Disorders. Articles Reprinted from the B. M. J. 1936.

Blacklock, D. B.: A Guide to Human Parasitology for Medical Practitioners. 1935.

Carter, J. B.: The Fundamentals of Electricardiographic Interpretation. 1937.

Boyd, W.: An Introduction to Medical Science. 1937.

Brickner, R. M.: The Intellectual Functions of the Frontal Lobes, A Study Based Upon Observation of a Man After Partial Bilateral Frontal Lobectomy. 1936.

Burrow: Biology of Human Conflict. 1937.

Cabot, R. C.: Meaning of Right and Wrong. 1936.

Castle, W. B.: Pathological Physiology and Clinical Description of the Anemias. 1936.

Christe, A. C.: Economic Problems of Medicine. 1935.

Cobb: Everyday First Aid. 1937.

Craig, C. F.: Clinical Parasitology. 1937.

DuBois, E. F.: Basal metabolism in Health and Disease. 1936. 3rd. ed.

LeComte du Nouy, P.: Biological Time . . . With Foreword by Alexis C. Carrell. 1937.

Eddy, W. H.: The Avitaminoses; The Chemical, Clinical and Pathological Aspects of the Vitamin Deficiency Diseases. 1937.

Freud, S.: Problem of Anxiety. 1936.

Galdston, I.: Medicine and Mankind. Lectures to the Laity. 1937.

Gonzales, T. A.: Legal Medicine and Toxicology. 1937.

Guedell, A. E.: Inhalation Anesthesia. 1937.

Guttmacher, A. F.: Into the Universe the Story of Human Birth. 1937. (Can be given to expectant mothers without fear of psychic trauma.)

Haven, L. C.: The Bacteriology of Typhoid, Salmonella, and Dysentery Infections and Carrier States. 1935.

Heermann, G. R.: Synopsis of Diseases of the Heart and Arteries. 1936.

Hertzler, A. E.: Surgical Pathology of the

Hinton, W. A.: Syphilis and Its Treatment.

Hinton, W. A.: Syphilis and Its Treatment.

Holcomb, R. C.: Who Gave The World Syphilis, The Haitian Myth. 1937.

Hyde, R. R.: Laboratory Outline in Filterable Viruses. 1937.

Jung, C. G.: Modern Man in Search of a Soul. 1935.

Kracke: Diseases of the Blood and Atlas of Hematology. 1937.

Leschke, E.: Clinical Toxicology; Modern Methods in the Diagnosis and Treatment of Poisoning. 1934.

Livingston, W. K.: The Clinical Aspects of Visceral Neurology, With Special Reference to the Surgery of the Sympathetic Nervous System. 1935.

Lectures on Medical History; A Series of Lectures at the Mayo Foundation and the Universities of Minn., Wis., Iowa, North Western, and Des Moines Academy of Medicine. 1933.

Lewis, T.: Diseases of the Heart. 1936.

Luten, C. C.: Clinical Use of Digitalis. 1936.

McKie, D.: Antione Lavoissier, the Father of Modern Chem. 1936.

Paget: Confession Medici. 1931.

Peters, J. P.: Body Water. 1935.

Rolleston, H. D.: The Endocrine Organs in Health and Disease. 1936.

Rowe: Clinical Allergy. 1934.

Schwab, G. M.: Catalysis, 1937.

Shafer, A. B.: The American Medical Profession, 1883-1850. 1937.

Titus, P.: Management of Obstetrical Difficulties. 1937.

Todd: Behavior Patterns of the Alimentary Tract. 1930.

Tuft, L.: Clinical Allergy. 1937.

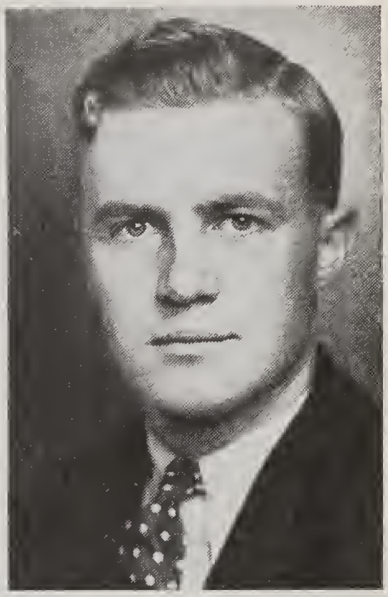
Warren, S.: The Pathology of Diabetes Mellitus. 1930.

Wechsler, I. A Textbook of Clinical Neurology. 3rd ed. 1937.

Wood, C. A.: Memorandum Book of a 10th Century Oculist. . . A translation of the Tadhkirat of Ali ibn Osa of Bagdad. 1937.

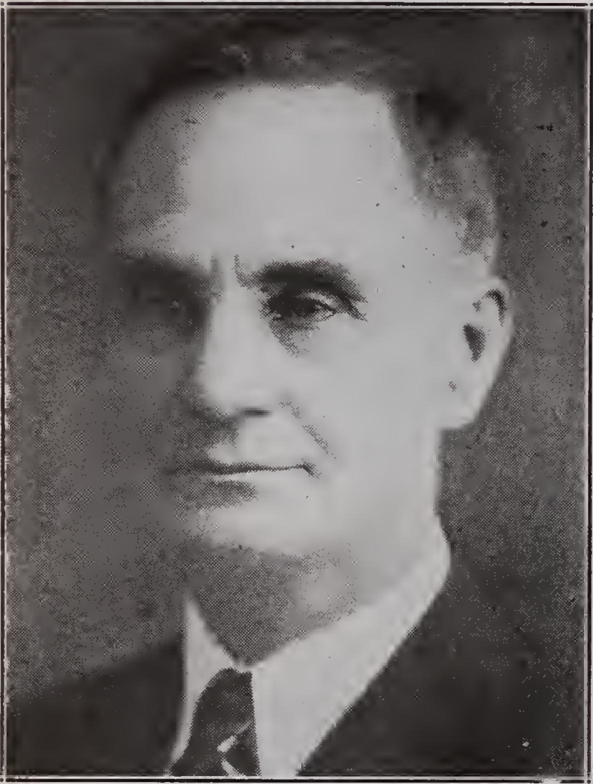
FOR SALE

One mercury lamp in A-1 condition of the following description: Luxor A Model Alpine Sun Lamp having aluminum hemispherically shaped hood and lighting arrangement consisting of a pull chain. Volts 110, Amp. 5, current AC-Cycle 60. Reasonable sale price will purchase this lamp. Write Editor **The Mississippi Doctor** for further information.



Dr. J. C. Henthorne, the pathologist at the Baptist Hospital at Jackson who is a big asset to our profession in the state. He came down from the Mayo Clinic and we are very fortunate to have him. We have been weak on pathologists, but now Jackson, Vicksburg and Meridian are placing us in the front ranks.

Dr. Felix J. Underwood was elected president of the Conference of State and Provincial Health Authorities of North America at its recent meeting held in Washington, D. C. His term is for a period of one year and he succeeds Dr. R. H. Riley, State Health Officer, Baltimore, Maryland. This is a very outstanding honor worthily and well bestowed. Dr. Underwood will fill the place with distinction. He is easily one of the ablest executives in the medical fraternity of North America.



Dr. Rice Williams, of Houston, who succeeds Dr. J. Percy Wall as speaker of the house of delegates. Dr. Wall served well and faithfully. No better selection could have been made for his successor than Dr. Williams. There is not an abler parliamentarian in this state and his mind follows justice and fairness as a needle the point. Dr. Williams is not only one of the ablest men in this state in his specialty of radiology, but he is also one of the greatest citizens this state has ever produced. He is kind and considerate and fair, but when principle is at stake he has the courage of a Spartan soldier. We congratulate the house of delegates on his selection.

COMING MEDICAL MEETINGS

Southern Railway Surgeons.—May 24, 25 and 26, New Orleans, La.

American Medical Association.—June 13-17, San Francisco, Cal.

Louisiana State Medical.—May 2-4, New Orleans, La.

Georgia State Medical.—April 26-29, Augusta, Forest Hill Hotel.

Texas State Medical.—May 9-12, Galveston.

Alabama State Medical—April, 19-21, Mobile.

American Neisserian Medical.—May 16 and 17, Public Health Auditorium, Washington, D. C.

Dr. Lawrence W. Long, who was elected as a member of the council at the last meeting. Dr. Long is very active in organized medicine. Much credit is due him for the great success of the Jackson meeting. He succeeded a fine man on the council, but no doubt will prove an able successor.

ANNUAL MEETING OF AMERICAN PUBLIC HEALTH ASSOCIATION

"Public Health in the World of Tomorrow" is the central theme of the 67th Annual Meeting of the American Public Health Association to be held in Kansas City, Md., October 25-28.

Recognizing that the responsibilities of the health official have expanded by sheer force of necessity into fields of diagnosis and treatment, considered in the very recent past as beyond the circle of health department obligations, the program of the Association's 67th convention will attempt to look around the corner and see what's ahead for the career man or woman in the public health profession.

It is agreed in Association councils that the advance in public health has been so rapid in the last half dozen years that a clarification of current objectives and policies is urgently needed. The convention will sound that note at the beginning of its deliberations, getting under way with a session devoted to a discussion of the present states of the health of the nation. Thereafter, the central theme, "Public Health in the World of Tomorrow" will be emphasized throughout the several days of meetings.

The American Public Health Association is a society of professional public health workers. Its membership numbers nearly 6000 and includes health officers, laboratory workers, vital statisticians, industrial hygienists, child hygienists, public health engineers, food and drug experts, health education authorities, nurses, epidemiologists and others who specialize in disease prevention and health promotion.

An attendance of 3000 is expected at the Kansas City Annual Meeting drawn from every state in the Union, from Canada, Cuba, Mexico and from abroad.

Dr. Joseph E. Green, of Laurel, President of the Mississippi State Medical Association. He will prove to be a safe and a progressive leader. Underneath his native home-spun jokes and illustrations may be found choice stones of human philosophy, deep thinking, and sound judgment. Through his leadership much medical information will be disseminated to the profession of the state this year. He is versatile enough to understand the needs of each specialty as well as the general practitioner. Dr. Green will carry with him good fellowship, good will, and warm and sincere interest. Our cordial good wishes are with him.

THE COMMUNITY CLINIC

The grind of brakes, a crash, a thud,
A cry of pain, a pool of blood,
An ambulance, the surgeon's knife,
A special nurse, a human life.
How calm she lies upon her cot.
A small hospital, near the spot,
Meant for this mother life or death
And for her unborn baby breath.
She is so young, she is so fair.
Her little son is standing there,
Beside his daddy, by the bed,
His little hand upon her head.
Within a month, or maybe less,
This woman in her loveliness,
Shall grace age in her cottage door,
As sound in body as before.
In times like these, when life and limb
Should have the shield of seraphim,
A prudent people should provide
For clinic care on every side.
Protector of the public health,
In every county, commonwealth,
In every section of our land,
May such an institution stand.
May victims of our stress and speed,
May everyone of every need,
In such a clinic, like this wife,
Find health and love and happy life.

Davied E. Guyton, Blue Mountain, Miss.
Written for *The Mississippi Doctor*.

BOOK REVIEWS

The Heart in Pregnancy, by Julius Jensen, Ph.D., M.R.C.S., L.R.C.P., Ass't.Prof. of Clinical Medicine, Washington University School of Medicine.

In **The Heart in Pregnancy**, Dr. Jensen undertakes a problem of uncontested importance to the whole medical profession, especially the general practitioner whose experience with it is constant. He recognized first the need of a review of existing evidence, to which he has added his own extensive observations. His book proves how vastly inconclusive is the knowledge of the relation between cardiac disease and pregnancy.

The book is extremely readable. Extraordinary case reports gathered from the literature as recorded by observing men of the past intersperse the well arranged data. Divided into three parts, the book deals in the first part with the effect of pregnancy on the normal heart, in the second with abnormal cardiac impulse formation during childbearing, and in the third with organic heart disease and pregnancy. Tables presenting graphic comparisons of heart function and changes clarify the discussions, while complete summaries conclude each section. Over a thousand references verify the extensive research of the author.

The Heart in Pregnancy is timely and deserves the attention of every obstetrician, cardiologist and general practitioner.

Price $5.00.—C. V. Mosby & Co., St. Louis.

Management of the Sick Infant and Child, by Porter and Carter, in a fifth edition is just off the press. It is published by The C. V. Mosby Company, St. Louis. The price is ten dollars. This single volume takes up the diseases as they appear in infancy and childhood and gives a practical plan of treatment and management so that the average practitioner can follow it. The authors give reasons for doing things that should aid the practitioner and stimulate him to constructive thinking. Under general considerations many conditions peculiar to the baby, infant and small child are illuminated. The different conditions are then taken up in what seems to be a natural order and cause, prevention, and treatment. Vomiting, diarrhea, constipation, nutrition are given full consideration. Then hemorrhage, pain, convulsions, fever, prematurity, diseases of the respiratory system, intestinal tract, heart, the blood and lymph, nervous sytem, and the skin are given due consideration. Genito-urinary and internal secretions and infectious diseases are discussed in detail; syphilis and tuberculosis, together with the everyday contagious diseases, are fully treated.

Part Three gives much space to methods such as intravenous injection, blood grouping and matching, the giving of serums and vaccines, skin tests, rules for sun bathing, and x-ray examinations et al. Formulas and recipes come in for much practical description, vitamins, their value and how to use them being included. Drugs as they are used in different diseases with dosage and actual prescriptions are discussed in a very helpful manner. How to handle cases of poisoning with antidotes for the most common ones is a last chapter.

Drs. Langley Porter and Wiillam E. Carter represent ability, learning and experience. Any practitioner can ill afford to be without this book. A treatise in one volume 874 pages.

Public Health and Medical Licensure in Mississippi 1798-1937 is a new book just off the press by Drs. Felix J. Underwood and R. N. Whitfield, of Jackson, Miss. It is a book of one hundred and seventy-five pages. It gives a history of public health and medical licensure in the state. Pictures of the first state board of health members are given, the executive secretaries are named from the first to the last, the first county health officers are listed and those serving in 1937. A map showing full-time county health units and a chart of how the medical dollar is spent are among the very interesting items. The work of Dr. H. A. Gant, who is now living in Columbia, Tenn., at the age of 86, is given due credit for the great work he did in helping to handle and to solve the yellow fever problem in Mississippi in the earlier days.

This book is well written. It is brim full of valuable and interesting information. No member of the medical profession in this state can really afford to be without a copy. We should be very grateful to Drs. Underwood and Whitfield for this fine piece of work. Their work in public health is being recognized throughout the nation more and more each day. All this valuable information may be had for only one dollar. Send money order or check to Miss Louise Williams, librarian, Mississippi State Board of Health, Jackson, Mississippi, at once if you desire a copy. The number of copies is limited.

Essentials of Obstetrical and Gynecological Pathology, by Marion Douglass, M.D., F.A.C.S., and Robert L. Faulkner, M.D., of Western Reserve University.

For students, house officers, and the surgeon who did not have the benefit of systematic training in pathology, this book is particularly beneficial. It is put together by two able instructors in pathology who see the importance of a knowledge of its essentials by all who are connected with hospitals having departments of obstetrics and gynecology. The text provides a clear presentation of the essentials of the subject, employing both microscopic and gross pictures of tumors and the general run of pathologic material as it is seen in the laboratory.

Price, $4.75.—C. V. Mosby & Co., St. Louis.

We received from C. V. Mosby & Co., Logan Clendening's **Woodwork in Elementary Diagnosis**, which he prepared primarily for use in instructing the medical student to become an "exact man." History taking, physical signs, with explanatory comments, methods of technical procedure in examination are set down in outline form, designed to give the student the habit of correct note-making.

In the words of the author "physical diagnosis should not be considered merely as a branch of internal medicine. It belongs to all clinical practice—surgical, obstetrical, etc.," and no doubt one of these workbooks deserves a place in every doctor's office.

Price, $1.50 (reduced from $3.00).—C. V. Mosby & Co., St. Louis.

DR. TASWELL P. HANEY

The above is the likeness of Dr. and Mrs. Taswell P. Haney, Iuka, Miss. Dr. Haney was born January 8, 1868 and was married to Miss Mattie Gist. Dr. Haney graduated from the Memphis Hospital Medical College in 1907, has had post-graduate work at Augustama and Cook County Hospital Clinics, Chicago, and has also had extensive post-graduate work from the University of the South, Sewanee, Tennessee. Dr. Haney has served his state and community well and is at present actively engaged in rural practice. He has one fine son, Dr. Taswell Paul Haney,, who is a graduate of Mississippi State College, ,University of Mississippi, University of Virginia, and John's Hopkins. There are three daughters, Mrs. Charles R. Stephens, McComb, Mrs. Eugene Gerald, Leland, and Mrs. Herman D. Webster, Oxford. All three daughters are ronor graduates of M. S. C. W., Columbus, Miss.

Dr. Lowrey Rush, of Meridian, President of the Mississippi Hospital Association. No better selection could have been made. Dr. Rush is broadly educated, is a surgeon of splendid ability, and he has had hospital experience that fits him well for this office.

AMERICAN MEDICAL ASSOCIATION TO MEET IN SAN FRANCISCO

The American Medical Association holds its annual session this year in San Francisco June 13-17. Every person who can possibly do so should attend this meeting. It is the greatest association all told in the world, great for its work in scientific endeavor and in its ability to deal successfully with our medical problems. The scientific session will be great, the pleasure trips will be enjoyed, and the association will have great broadening and educational value. This association puts out a great journal, the A. M. A., and it publishes "Hygeia," a wonderful magazine that should be in every home in the land.

MISSISSIPPI STATE MEDICAL ASSOCIATION and COMPONENT SOCIETIES

The History and Advancement of Medicine*

W. L. LITTLE, M. D.
Wesson, Miss.

The spirit of medicine at its best is the true scientific spirit. It is contained in the statement of Jesus when on trial before Pilate:- "---that I should bear witness unto the truth." To find the truth, properly to interpret, evaluate and appropriate it, is indeed the very spirit of medicine.

The science of medicine was born before history began wherever there was illness among men. Although crude, yet it was a search after healing. No doubt many recoveries took place only through sympathetic care and the naive application of herbs. But the "still, sad music of humanity," with its ailments and suffering, has ever been an incentive to relieve distress. and to this day is a powerful driving force to those with "the physician's heart."

In reviewing the history of medicine, it is interesting to note the progress this force has brought about. It is important to understand where and by what routes this inner urge has lead the sons of Hippocrates. It is a valuable lesson to study the manner of scientific accomplishment, to learn that most steps forward have been made only after repeated failure. But in the whole panorama of medicine, it is most significant of all to determine where we are headed, the goals toward which we are striving, and the mission that is ours to accomplish. A forward-thinking and forward-acting group looks constantly ahead, pushes always to the fore, counting its past only priceless experience and invaluable stepping stones to progress.

There is still much to be done in our profession. There is as yet a tragic lag between knowledge we already have and the application of that knowledge. This fact is manifest by preventable deaths in our midst daily. Victims from syphilis, tuberculosis, malaria, typhoid fever, diphtheria, inadequate maternal and infant care—suffering humanity of all sorts and descriptions—go to their graves by the scores from causes we know how to prevent. The need is crying to suit our action to our knowledge and take up the slack between what we know and what we do.

At the same time, the true spirit of medicine demands that the profession forge on to new discoveries, new methods of treatment, and new cures for age-old maladies of man. Much remains to be learned of cancer, pneumonia, tuberculosis, infantile paralysis, and many other causes of suffering and death. Specific cures are few and far between.

Thus it is seen that though much has been done, much remains to be done. The history of medicine stretches far ahead and far behind. In the light of applying what has been accomplished to what may be accomplished, that which has gone before is reviewed here.

The infancy of medicine seems to have had its beginning in Egypt. In that cradle of civilization three thousand years before Christ, sanitation was highly developed. Some of the cities had sewerage systems wherein copper pipes welded with blow torches were used. However, by 1500 B. C. such things had passed in Egypt.

The best rules for preventing contagion to be found anywhere until modern times are in the Mosaic Code, written about 1500 B. C. Segregation and sanitation were effectively systematized.

Although it included error and bungling, surgery in ancient India fifteen hundred years before Christ was wonderfully developed.

Greece, in a way, inherited the medical lore of older and decadent civilizations. Aristotle was the greatest biologist in ancient times. It was he who wrote accurate descriptions of more than five hundred animals in the Aegean basin.

---

*President's address, presented at the Seventy-first annual session of the Mississippi State Medical Association, Jackson, April 19, 1938.

Greek medicine, according to mythology, goes back to Aesculapius, the son of Apollo, and the god of medicine. Many are the fables that tell of his cures and good deeds.

Hippocrates (460—370 B. C.) is known as the "Father of Medicine." Well does he deserve the title. His eminence is three-fold: "he dissociated medicine from theurgy, or witchcraft, and philosophy; crystalized the loose knowledge of the Coan and Cnidian schools into systematic science; and gave physicians the highest moral inspiration they have." He was essentially a surgeon in his practice, and made Greek medicine surgery. He was also a truly great diagnostician.

To the Greek school also belongs Luke, "the beloved physician." A study of his writings, the **Gospel of Luke** and the **Acast**, reveals a use of many technical medical terms. Judging from his language and use of words of medical signification, one must conclude that he was a great physician. He was at least great enough to be the personal physician of the Apostle Paul.

It may be said that Greek medicine migrated to Rome with the destruction of Corinth in 146 B. C. Asclepiades was one of the first Greek physicians to move to Rome. Celsus, who lived in the time of Tiberius, was a compiler of medical writings. His range was the whole field of medical knowledge. He was the first to recommend nutritive enemas; he was also active in the treatment of venereal diseases, malarial fever, and insanity. In his time the dissection of the bodies of executed criminals was permitted and widely practiced. Over two hundred surgical instruments have been found in the ruins of Pompeii.

The second century of our era was a great time of eclecticism, or the gathering of the seeds of thought and knowledge. Of the physicians of this time we find Areteus, the Cappadocian, to be one of the greatest physicians after the Father of Medicine. His description of disease is practically the best in ancient times. Rufus of Ephesus wrote a valuable work on anatomy. Soranus of Ephesus did such marked work in obstetrics that there was no real addition to that field for fifteen hundred years.

Galen (130—201 A.D.) was the founder of experimental physiology and a very successful practitioner. He was the authority in physiology for fourteen hundred years. His experiments in the physiology of the nervous, respiratory, and circulatory systems gave the only real knowledge for seventeen centuries.

One of the strangest phenomena of history is the fading of light and the decline of knowledge at undetermined intervals. With the decline of Greek and Roman civilization, medicine fell into decay.

An outstanding incentive to decay is found in the Natural History of Pliny the Elder (23-79 A. D.) in which he takes many slaps at physicians. During the Dark Ages it was one of the most widely read works. After the invention of printing, it passed through eighty editions. His errors remained unchallenged until the time of the discovery of America when Nicholas Leonicenus exposed some of his mistakes.

With the bare mention of Paul of Aegina (625-690 A.D.), the last light before the total eclipse, we pass to Guy de Chauliac (1300-1368 A.D.), the greatest physician for a thousand years. During the plagues of 1348 and 1360, when all other physicians fled the locality, he stayed by his post at Avignon and nursed the sick. However, he was averse to surgery, and retarded the progress of that branch of medicine for five hundred years.

The greatest experimenter of the thirteenth century was the English Franciscan Roger Bacon (1214-1294), called **Doctor Mirabilis,** who was a comparative philogist, mathematician, astronomer, physicist, physical geographer, chemist, and physician.

All the medieval church councils condemned surgery. They also condemned the Popes John XXI and Paul II, both of whom were physicians. During the time leprosy, black death, and syphilis took heavy toll of life annually.

We find the first compulsory medical examinations in the reign of King Roger II, of Sicily, about 1140.

The period of the Renaissance (1453-1600) was one of revival in learning and reformation. Among the great lights of the time we find Leonardo da Vinci (1452-1519), the founder of inconogoraphic and physiologic anatomy. His works are startingly modern in their accuracy. Another of the time was Miguel Servetus (1509-1553), who was one of the world's martyrs for the crime of honest thought. His discovery that the blood in the pulmonary circulation passes into the heart, after having been mixed with air in the lungs is recorded in his book, "Restituto Christianismi" (1553), of which only copies at Paris and Vienna are known to exist. The rest were burned with him at the behest of John Calvin.

The first real Renaissance surgeon was Ambroise Pare (1510-1590). He started as a barber's apprentice. Then, being thrown into wars, he became an army surgeon. He did not hesitate to thrust aside ignorance and superstition when they were in the way. Yet he was one of the best loved of men.

The seventeenth century was an age of individual scientific endeavor, graced by such men as William Gilbert, physician to Queen Elizabeth and James I; William Harvey, the greatest name in medicine in the seventeenth century; Athanasius Kircher, and his associates, the earliest microscopists; and Rene Descartes, who made important discoveries in reflex action.

The eighteenth century was an age of theories and systems and the golden age of quackery.

By the nineteenth century faint beginnings of the organized advancement of science were becoming apparent. Among the early contributions of the nineteenth century, we find Helmholtz's **Conservation of Energy**, Darwins' **Origin of Species**, and Sir Thomas Watson's **Lectures on the Principles and Practice of Physic**. Another notable physician of the time was Oliver Wendell Holmes, who was something of a specialist on puerperal fever.

Ephraim McDowell (1771-1830), of Virginia, a pupil of John Bell, of Edinburgh, was early impressed with the sad and hopeless fate of women afflicted with ovarian diseases. In 1795 he settled in Danville, Kentucky, and there became known as a skilful and successful surgeon, especially in lithotomy, which he performed twenty-two times in succession without the loss of a case. His first ovariotomy was performed upon a Mrs. Crawford, a woman of forty-seven, who lived to be seventy-eight. He performed the operation thirteen times in his life with eight recoveries. Although ovariotomy had no existence before Mrs. Crawford's operation, he put it on a permanent basis.

In 1835 James Marion Sims discovered the Sims' position, the use of the catheter, and methods of avoiding sepsis.

Louis Pasteur (1822-1895) was primarily a physicist, then a chemist. His studies in fermentation and putrefaction, however, transformed him to a medical man. He confirmed the discoveries of Koch relative to anthrax. But his perfecting of preventive vaccination against hydrophobia made him famous.

Robert Koch (1843-1910)began his researches in germ culture with anthrax. His studies in tuberculosis were epoch-making, leading the world to think at first that he had developed an effective remedy for the disease. The disillusionment temporarily shook the confidence of mankind in the medical profession. Koch's labors, however, were extremely valuable. The supposed remedy was to be proved effective in diagnosis. In 1891 the Institute for Infectious Diseases was founded in Berlin, and remained under Koch's direction until he resigned in 1904. In 1905 he received the Nobel Prize.

Lord Lister (1827-1912) is, we may say, the founder of modern antisepsis and asepsis. All modern developments of the surgery of the hollow cavities of the body and much of present-day obstetrics are due to Listerism.

Sir William Osler (1849-1919), of Bond Head, Canada, was the fountain head of the scientific teaching of internal medicine in hospital wards. His teaching, his books, and the impetus he gave the cause have been very fruitful, especially in American medicine.

The twentieth century has become the starting point of organized preventive medicine. The medical profession, as such, has now as its outstanding objective to keep people from being ill—to keep them as well as possible. It is therefore rather inconsistent on the part of some to accuse the medical profession of selfishness.

Typical of the spirit of the present century is the work of Major Walter Reed (1851-1902), of Virginia, who, after efforts, conquered yellow fever by destroying the mosquito. The Panama Canal and all other such projects in the tropics, as well as many subtropical cities, owe their existence largely to Major Walter Reed.

There is present now in our social order the demoralizing influence of the extravagancies of Russian Communism. In Russia's desperate effort to feed, clothe, and give medical attention to millions of poor and ignorant people, she has had to resort to methods and uses far below those dictated by science and common sense. As a result there is a moral let-down in many social institutions all over the world.

It would seem that the battle of the present decade, or generation, perhaps, is that of social, or state medicine. To protect the social body and reach the masses of indigent, many are urging state medicine. Of course, state medicine would, without doubt, lower the standards of the profession and place medicine largely in the hands of politicians. Yet it is our purpose to reach and care for the indigent through the charity hospitals and otherwise, as well as make further advances in preventive medicine through the county health units.

As to how medical care for those unable to obtain it otherwise will be worked out, we do not yet know, but we must realize that it lies in our province to decide this question wisely and judiciously. Individually and in groups we. the Medical Association, should give this matter serious consideration and study.

Undeniably the prevention and cure of disease will continue to go marching on, and it is our privilege and duty as physicians to lead the march.

And now to bring the history and advancement of medicine home to Mississippi! It is with pleasure that I do this, not only because of our interest in matters close at hand but because of the credit with which it may be done.

When the State Board of Health was organized in 1877, the health problem was largely one of sanitation and quarantine. With few exceptions, the germ causes of disease were unknown. The only way our forefathers could escape the yellow fever epidemic in 1878 was to go to distant points not infected.

In 1901 Dr. H. A. Minor, of Macon, Miss., one of the best and most learned physicians in the state presented an address in Jackson as retiring president of our State Medical Association and made the statement that he did not believe that the mosquito was the only cause of malaria. Now we know that not only is the mosquito the only cause of malaria, but that only one species of mosquito, and only the female of that species does all the damage. Now we work on the principle that malaria control is largely mosquito control. Much of our progress in disease control is within my memory.

My feeling regarding our advancement in Mississippi is a personal matter, as I was a member of the State Board of Health from 1908 to 1912. I have also been health officer in Copiah County. I know thoroughly the magnitude of our public health problem. We owe a great deal of our progress to Dr. Fred J. Myer, state lecturer on hygiene and sanitation, employed in 1908; to Dr. W. S. Leathers, appointed State Director of Public Health in 1910; and to Dr. Felix J. Underwood, the present health officer. Dr. Myer was the first state lecturer of hygiene in the United States. Dr. Leathers and Dr. Underwood have become national figures in their accomplishments.

The Tri-County Medical Society meeting at Lake Chatauqua, Crystal Springs, July 23, 1909, put on a public health program for the prevention of disease. This was the first movement of its kind in the United States. Dr. Thomas Purser, of McComb, was president of the Society and Dr. D. W. Jones, now of Jackson, then of Brookhaven, was secretary. The same society was active in its support of the State Board of Health.

The requirements for entering upon the practice of medicine were increased in 1908.

In 1910 I went with Dr. Leathers to Richmond, Va., for a hookworm convention. It was immediately after that that the State Board of Health initiated its program for the eradication of hookworm.

The State Hygienic Laboratory was established in 1910. In the same year field workers were appointed.

The year 1912 was one of noted advancement. In that year a state sanitary inspector was employed, the Bureau of Vital Statistics was established, a contract was made reducing the cost of biological products, and the law was passed requiring that each licensed physician must be a graduate of an "A" grade medical school.

I feel that one of my good services was in helping to elect Dr. Underwood to his office. At this time I also want to pay tribute to Dr. C. D. Mitchell for his work at the State Hospital for the Insane.

At the time I became a member of the Board of Health in 1908, tuberculosis claimed Mississippians yearly by the thousands. While I was on the State Board of Health, we advocated the building of the Sanatorium. Due to excellent control measures instituted by Dr. Henry Boswell and health workers throughout the state, this figure (2743 in 1917) has been reduced to less than half in twenty years. Nevertheless the disease is still a major menace and one of the leading causes of death among the youth of the state.

Heart disease and cancer are the leading causes of death throughout the nation. Regarding control of heart disease, Dr. Underwood says: "The most urgent need now is the active assistance of the laymen. Until public health and medicine have the full support of the citizens of the state, no reduction will be made in the high mortality rate from heart disease in Mississippi. A vast amount of educational work will be necessary on the part of the health forces, and early diagnosis, proper treatment and heart clinics for the poor will be necessary on the part of the medical profession."

Practically the same may be said with reference to cancer. Already several states, including our neighbor Georgia, have set up cancer control clinics to which the physicians of the state can refer patients unable to secure diagnosis and treatment otherwise. A similar service should be available in Mississippi.

The setting up of syphilis clinics is foremost in the immediate steps of the public health program. Already in operation in fourteen counties of the state are clinics for the treatment of indigent cases of syphilis unable to obtain care. These clinics are sponsored and manned by the local medical profession in co-operation with the full-time health officer. It has been found that a clinic can care for approximately fifty cases a week at a cost per patient of about $30 annually. Since the legislature this year has matched federal funds for social hygiene, syphilis clinics for the indigent will soon be organized throughout the state.

Realizing that no one in the underprivileged group suffers more than the expectant mother, aware that maternal and infant death rates have remained distressingly high during the past half century, physicians and health workers are now seeking adequate funds from both state and federal sources to concentrate their efforts in this field. It is hoped that the next few years will see marked improvement in the quality and quantity of infant and maternal care. It is anticipated that no mother unable to pay for hospital care and medical attention need unnecessarily risk her life that a child—a future citizen of our great Commonwealth—may be born.

It is interesting to note here that the postgraduate course for physicians in pediatrics which began two years ago has been continued and will be completed by the summer of 1938. At its meeting in Meridian last year the Mississippi State Medical Association decided to co-operate with the Division of Medical Extension of Tulane University in conducting medical courses for physicians in Mississippi. Heretofore the extension teaching has been conducted under the auspices of the Committee on Postgraduate Medical Education in Mississippi. This new alignment with a medical school seemed to make for greater permanency in this type of postgraduate medical education. The pediatric course in operation has been offered in 14 centers throughout the state, and 211 physicians have been in attendance. The instructors have demonstrated numbers of patients in clinics and some 52 patients have been seen in consultation. It was felt that better care might be given new-born infants and older children if the public were informed of the importance of medical care for infants. The instructors in pediatrics have therefore frequently been asked to speak before lay groups on this subject. They have appeared before 27 such groups and have spoken to approximately 7,000 lay people, particularly on the preventive aspects of diseases of children.

During the past year a new course has been instituted in Mississippi. It was the desire of the Committee, working in harmony with the U. S. Public Health Service, to institute a course in syphilology. This has been in progress for about eight months and will be continued through the coming year. This course has met with considerable favor with the physicians, who realize that there is a concerted effort being made to control syphilis, and that many of the preventive, diagnostic and therapeutic aspects of syphilis are overlooked by many of us.

Since this course began, instruction has been given in 9 centers in the state, with a total attendance of 135 physicians. There have been 50 patients seen in clinics and in consultations.

Since the subject of syphilis has been given so much publicity, it was felt that the instructors could do much of their best work lecturing to lay groups, acquainting the public with sociological, preventive and curative phases of the disease. About 26 different lay groups consisting of high school and college student bodies, civic organizations, and Parent-Teacher Associations have been met by the instructors, and much interest has been manifested by these organizations in this very important subject. A total of about 4500 laymen have thereby been reached.

It is hoped that much good will come of this type of instruction, both to the body of physicians in the state as well as to the public.

Courses will be offered yearly, and each new subject offered to the physicians will depend largely upon requests received from those doctors who have attended previous extension courses. There is no doubt but that this method of instruction is valuable and is easily attained because it is brought to the physician with very little effort necessary on his part. It should continue to be a permanent part of postgraduate medical education, and I heartily endorse the continuance of this postgraduate medical education program.

In conclusion, I should like to say a few words about the old family physician, who willingly and cheerfully responded to all calls. He was a man possessed of the greatest of all civic virtues, loyalty and bravery. His fearlessness in walking into the very jaws of disease and death that he might do his part for the ills of suffering humanity, his life of unselfish service, and noble deeds are an inspiration to all.

Such a beautiful art, a noble and soul-stirring calling, has at some times pain and bitterness, but these are forgotten in experiencing the joy of conquering disease and triumphing over nature.

What a happy moment in declining years to look back to some invention or discovery which has helped to forge a new weapon against disease and death. It is a greater compensation than gold to know that one has had a part in something that will live throughout the lapse of time.

Infirmity, disease, and death are accepted as the natural consequence of old age.

But one who lives the life of a true and tried physician need not fear when the transition between life and death comes. He has had a part in a calling that has done noteworthy good in a profession which has overcome many obstacles and made remarkable advancements even in one lifetime.

He has completed a mission of grandeur and beauty and shared the work of a great movement which will continue to gather momentum in its service to suffering humanity.

◆

Biopsies*

LEON S. LIPPINCOTT, M.D.
Vicksburg, Miss.

When asked to discuss "biopsies" before this Section on Surgery, it seemed to me that it would be of interest to present a cross section of the opinions of the members of this Association in regard to this important aid to diagnosis and prognosis. Accordingly questionnaires to obtain such opinions were sent to all members of the Association on February 23, 1938. On March 21, less than a month, 288 questionnaires had been returned. I think this may be taken as an indication of rather unusual interest. Since then other answers have been received but this discussion is based on the first 288.

I want to take this opportunity to thank all of you who have responded for your helpfulness and kind encouragement.

The word "biopsy" comes from Greek words meaning life and vision. Biopsy is the examination of tissue removed from the living body and in usage has come to be mostly limited to the examination of more or less small pieces of tissue removed not only for diagnosis but for confirmation of clinical diagnosis and as a guide to treatment and prognosis.

The first question asked was, "Do you think biopsies are of value to you in the diagnosis of malignant conditions?" Of the replies, 241 were "yes," one was "no," 19 gave answers other than yes or no, and 27 did not answer this particular question. Some replies were:

"Never used any."

"Yes, however, I feel that frequently the biopsy material may not in itself be diagnostic.' (Comment: This is true unless the specimen submitted for examination is representative of the condition present. Usually it should include the advancing edge of a growth with some normal adjacent tissue. A slough from the surface is not diagnostic.)

"Yes and no. Some biopsies have proven of no diagnostic value." (Comment: The same qualifications apply).

"In the type malignancies I have happened to have biopsies have not been necessary." (Comment: Few workers are so fortunate).

"Probably so; I seldom need one." (Comment: This is not the usual experience).

"Once in a great while."

"Sometimes."

"Emphatically, yes."

"Absolutely, yes."

"Yes, decidedly."

"Yes, undoubtedly."

"Biopsy is the only certain way of diagnosing a malignancy."

"Yes, indeed."

"Yes, very much so."

"Definitely yes."

"Decidedly."

"I could not practice scientific medicine without them."

"Yes, exceedingly so!"

"Indeed I do."

"Absolutely, positively."

"Yes, the only exact method."

"Indispensable."

"Most assuredly."

"Yes, of great value."

"Unquestionably."

"Absolutely."

"Most necessary."

"Of unquestioned value."

"Decidedly, yes."

"Yes, **without a doubt.** Demonstrated to me a thousand times."

"Of infinite value."

"Yes, to any M.D."

"Yes, very great value."

"Essential."

"Yes, absolutely essential."

"Yes, often only way for positive diagnosis."

"Certainly so."

"Yes, very."

It is apparent that a majority of those replying (92.3 per cent) feel that biopsies are of value to them in the diagnosis of malignant conditions.

The second question asked was, "Approximately how many biopsies did you take in your practice in 1937?" The answers:

Taking no biopsies	57
1 to 10 biopsies,	115
11 to 20 biopsies	29
21 to 30 biopsies	10
40 to 204 biopsies	17

The number taking biopsies was 171 or 75 per cent. The total biopsies taken by the 171 doctors replying was 2,708, or an average of 15.8 per doctor. There are 1,367 white doctors in Mississippi. Potentially 1,367 doctors took 16,195 biopsies in 1937.

The third question was, "Do you have any objections to biopsies?" The answers were: "No," 247; "Yes," 3; other answers, 11; no answers 27. Some of the replies were:

---

*Read before the Section on Surgery at the seventy-first annual session of the Mississippi State Medical Association, Jackson, April 20, 1938.

"Yes. Aggravation in cases malignant."

"No. Because the danger of malignancy resulting is remote if carefully done."

"Yes. In soft tissues probably more rapid spread of the malignant growth."

"No. None tenable."

"In some cases, yes. I fear they may cause earlier metastasis."

"No. They should be done routinely."

"Yes, when not made by a trained observer."

"No. Necessary for proper diagnosis."

"Yes. The expense and difficulty involved in sending." (Comment: I wonder if this is a valid objection when a life is involved).

"None other than the expense. If patient can pay, I have none." (Comment: Probably no pathologist would refuse examination of tissue if patient is really indigent).

"Certain instances of objections: (1) Poor technic may cause spread of lesion; (2) When diagnosis is self evident; (3) When malignancy is known, object to finding Broders type purely for scientific purposes—regardless of irradiability, etc." (Comment: When is diagnosis "self evident?" Does not finding the Broders type have something to do with irradiability and prognosis?)

"No, if properly done. Incomplete biopsies may be deluding."

"I object to incisional or surgical biopsies because of possible dissemination of cells. I am afraid of uterine curettage because of the danger of causing metastases. In the skin it is safe to take material at will almost, and I perfer the punch method. Under the skin, I prefer aspiration method. It is a harmless and painless procedure."

"No (?). Some bone tumors may be objectionable, also melanosarcoma."

"None, if operation for malignant conditions is done immediately thereafter."

"No, if properly done and appropriate treatment followed immediately."

"Not on the other fellow."

Approximately 95 per cent of those replying have no objections to biopsies.

The fourth question was, "Have you ever in your experience known of any condition that was made worse by biopsy?" The reply of 243 doctors was "No;" eight answered, "Yes:" there were seven other answers, and 30 did not reply. Some of the answers were:

"Yes, Negro female, age 36. Dyspnea on exertion getting worse for two years. Substernal bulging, first to third rib. Radiological diagnosis: thymoma. Attempted biopsy. Patient died on table. Postmortem examination showed aneurysm."

"**Yes.** Have seen death from biopsy on what proved to be an aneurysm, and twice as a result of biopsy in cancer of esophagus. Have seen several actively malignant tumors grow more rapidly and probably metastasize early because biopsy was not followed by proper treatment, which is adequate irradiation if surgery is not practicable."

"**Yes.** Malignancy of tongue. Section made, then radium needles inserted in growth, with rapid scattering of metastases in submaxillary region. Patient would probably have lasted longer without opening up the new channels. Surely the wait between biopsy and application of radium hastened the end."

"**Yes.** I have seen several cases of malignancy in which it was my impression that biopsies contributed to metastases. Two were bone sarcoma; one was melanosarcoma of scalp; one was basal cell carcinoma of nose in which widespread metastases occurred following biopsy. Despite above cases, I advise biopsy when in doubt."

"I have had cases in which biopsy was done in which in a very short time—shorter than one would ordinarily expect—death occurred. This **cannot** be attributed to the biopsy at all because if biopsy proves malignancy, some measures are nearly always taken which also could produce metastases and start a more rapid death.

"This recently happened in a case of prostatic malignancy but, following the biopsy, radium seed were implanted and there was an immediate 'channelling' of the prostate.

"In other words, it seems to me that there would naturally be very few cases in which we could truthfully say biopsy **alone** made the condition worse."

"**Yes.** Twice. Both carcinoma of the rectum. Colostomies were done but sites of biopsies did not heal and made fistulous tracts into the vaginae. However, both were inoperable except for colostomy for relief."

"**Yes.** I have seen at times following section of breast what was considered to be spreading of malignancy."

'**Yes and No. Yes**—case of spindle cell tumor of right lower arm near elbow in 8-year-old. No—so many biopsies made by taking small bits of tissue and **no** damage done, but, on contrary, therapeutic measures taken prolonged life and gave comfort."

Of course, biopsy is a surgical procedure and as such may not be absolutely harmless. The complications of any operation may occassionally occur. It is not possible that the basis of an opinion that diagnostic incision into tumors is a dangerous procedure may rest on one of two cases occurring in the experience of an individual? Untraumatized tumors do not grow with any regularity. Considerable periods of rest may alternate with active periods of growth. Because a tumor grows more rapidly after biopsy, is that growth necessarily due to the biopsy? I think it is the majority opinion that a benign tumor is not made malignant by biopsy and that in most instances metastases in a malignant tumor are not hastened by removal of a section for examination. Ninety-four plus per cent of Mississippi doctors answering had never known of any condition made worse by biopsy.

The fifth question was, "Have you ever had a case in which biopsy has caused you to change your treatment so as to save life?"

The replies were: "Yes," 135; "No," 85. Other answers were given by 14 and 54 did not reply to this question. Some of the replies giving details follow:

"I cannot see how anyone can do intelligent surgery without the aid of tissue examinations. In the past 6 months I have picked up two cases of uterine malignancy that were diagnosed metorrhagia of the menopause. The diagnosis was correct but malignant cells were found in the cervical scrapings. This is just one instance of the value of biopsy.

"Of course, frozen sections with immediate examination are probably more convenient and perhaps safer in certain instances, but this is impossible in the small hospital, or at least impractical, but I have never seen any harm come from waiting on the report from a tissue specimen."

"Carcinoma at base of tongue in white male, age 50. Diagnosed clinically Vincent's angina. Biopsy showed carcinoma. Patient refused surgery and became very indignant at the man who did the biopsy. Died later following radiation by another doctor. Should have had biopsy at the start instead of after treatment was instigated. This would have saved befuddling the patient and he would not have lost confidence in the profession."

"I operated upon a man ten years ago who had syphilis and cancer of the penis. Biopsy showed squamous cell carcinoma. Much valuable time was saved in doing immediate operation rather than treating him for syphilis first. Biopsies are valuable in that they afford early diagnosis and immediate treatment."

"I average about one to two cases annually where apparently benign conditions of the cervix prove to be carcinoma."

"More than one time I have changed treatment, most times from medical to surgical."

"Two recent cases in women, both past the menopause. First had large, hard adherent uterus and ulcerated cervix, hemorrhages and anemia. Every appearance of malignancy. Biopsy negative. Operation showed degenerating fibroid.

"The second case—cervix ulcerated, bloody discharge. Biopsy negative. Both urine and blood showed high sugar. Under insulin treatment, condition cleared up.

"The treatment was changed because of the biopsies."

"Negro woman, 25 years. Vaginal bleeding, loss of weight, anemia; all classical signs and findings of rapid disease. Advised to report to hospital for surgery. On second thought, section and Wassermann test. Biopsy negative; Wassermann 4-plus. After two doses of neosalvarsan, gained seven pounds and feeling much improved."

"White man, age 52. Apparently innocent 'lipoma' from region of olecranon: Biopsy report: several vessels in perichondrium show perivascular infiltration. Lues should be excluded or proved by Kahn or Wassermann. There were no clinical signs of syphilis, therefore, a positive Wassermann before tissue report was doubted. Tissue report enhanced the diagnosis of syphilis which was confirmed by a second positive Wassermann."

"A very young woman who seemed to have an endometritis was found by biopsy to have advanced cancer of the cervix and uterus. Treatment in a different manner and to-day appears to be in good health."

"Without biopsies we cannot differentiate simple cervicitis and other benign conditions from early carcinoma, which, of course, radically changes the treatment."

"I recall one case this year of an innocent looking tumor in the breast of a young woman. Biopsy revealed adeno-carcinoma. Complete resection of breast and deep x-ray instituted, I believe a life-saving measure in this instance for which biopsy must be given full credit."

"Two cases of cervical growth simulating carcinoma. Biopsies showed them to be inflammatory. Hence, I did not operate."

"The undersigned fully realizes that diagnosis from gross specimens is impossible in border line cases. Tissues from areas predisposed to cancerous condition should always be examined regardless of gross diagnosis.

"One very good friend developed lung abscess. X-ray and other diagnostic procedures indicated carcinoma. Biopsy revealed true diagnosis. Treatment satisfactory."

"I had a case that looked like syphilitic ulcer of the nasal septum. Wassermann positive. Biopsy of edge of ulcer showed carcinoma. Radium was used with fine results. If patient had been treated for syphilis alone, probably it would have been fatal."

"Often. Where conditions were malignant at beginning of disease but not suspected or doubtful. Two cases diagnosed malignant were gummata. Classification of malignancies is also helpful."

"Suspected carcinoma of liver, biopsy and culture. Diagnosis acute streptococcic infection. Treatment with recovery."

"I have had a number of uterine cervical conditions that apparently were malignant which were proved by biopsies to be benign. Under cauterization, conditions cleared. I have had cases where the biopsies were negative and the patients died of malignancies. Biopsies I consider a very necessary procedure but one that you cannot rely upon absolutely."

"As a simple example, the ordinary types of cervicitis, particularly at menopause age, are often difficult or impossible to differentiate between benign and malignant except by biopsy. I have had several such cases discovered by biopsy to be malignant and treatment changed from conservative to radical."

"Patient, age 30. Bad cervix which did not respond to the usual local applications. Biopsy showed malignancy. Radium applied. Good results.

"Patient, age 31. Cervix that looked very much like the other and would not respond to local applications. Biopsy did not show cancer. Cautery cured this case."

"Female, age 47. Previously diagnosed cancer uteri. Received radium for uterine hemorrhage. Continued to bleed. When seen by me, red blood cells 1,500,000 and hemoglobin 30 per cent. Three transfusions and curettage. Biopsy showed polypoid endometritis. Patient stopped bleeding and is well 5 years later."

It is impossible to quote the details of all answers received. However, more than one-half (58 per cent) of the doctors replying to this question have had from one to several cases in which biopsies have caused them to change their treatment to the benefit of the patients and often as a life-saving procedure.

Names have not been used. However, only 13 of the 288 doctors returning the questionnaires expressed any objections to the use of their names. The great majority were willing to stand by their convictions.

In closing may I ask for close co-operation between the surgeon and the pathologist, so essential for accurate diagnosis of tissue specimens. Too often, very small bits of tissue are submitted for examination when more generous specimens can be obtained. The advancing edge of a growth with some adjacent normal tissue should be included.

There are many ways of taking biopsies. Generally the sharp knife and the punch produce the best and most informative specimens. Tissues shrunken and distorted and "cooked" by the cautery give microscopic pictures difficult or impossible of interpretation. If it is thought necessary to cauterize, the specimen should be taken with the knife or punch and the site cauterized afterward.

Specimens should be cared for after removal. Drying may be as bad as "cooking." Unless to be examined immediately tissues should be placed at once in solution, 10 per cent formalin solution if frozen section is to be done later.

The pathologist should not be expected to be a mind reader. Give him some information as to the source of the specimen, its relation thereto, method by which obtained, age, sex and color of the patient, length of illness, other lesions, and other pertinent data. Your pathologist is a doctor and a consultant. Give him the same information you as a surgeon would want and expect before you made a clinical diagnosis.

And finally, every biopsy, whatever its location, should be done with as much care as any major surgical procedure—strict asepsis, sharp instruments, good exposure and illumination, and with the greatest precision and gentleness. In biopsies we have a means of doing much for our patients. Let us use it properly.

DISCUSSION

Dr. R. L. Sanders (Memphis, Tenn.): It is with much pleasure that I can say a few words to you. I wish it had been possible to have discussed more of your papers. I may say that for more than thirty years I have been running over this country to various medical meetings and I have come so near home today and have heard some of the best things I have ever heard.

All of the papers have been interesting and I have enjoyed them very much indeed, particularly the subject we are now on, which was started by Dr. Menville's splendid paper on "Carcinoma of the Cervix," and then followed by the discussion of the last essayist.

I fully agree with him that biopsy is the arrow that points us to the sign directing us along the way of treatment. I have seen a lot of gross specimens from patients but I have never yet reached the point where I can make a definite diagnosis without the aid of my friend, the pathologist, in the laboratory, and I lean more and more upon him as time goes on. I feel also that the biopsy to be of real value must be adequate and properly taken. - use the word "adequate" there because the pathologist is really at a great disadvantage if he is given a specimen of tissue to examine and he cannot find what you expect him to find and if you really get down to what it is all about he will tell you the tissue was inadequate. Possibly you have given him a little piece of degenerated tissue or it is possibly "cooked" as he said.

Now in my own work, if a specimen be taken from the cervix, we have a little wire rod and a fast cutting electric current which has been exceedingly satisfactory to go deep enough to get an adequate piece for examination and not destroy the tissue. I have been using that almost exclusively.

For many years I used a knife because we had no such arrangement as the cold knife but since this device has been so well proven to be satisfactory I am using that and in most instances we are using a cautery loop, particularly in rectal work.

I have worked for a great many years along this line and we have a good deal of rectum and colon work. Very frequently, in fact every little while, a patient comes in with a hemorrhage, we will say, from the rectum. On examination you will find a suspicious lesion too high to reach with the average knife but with a copper loop on a well-insulated wire passed up as high as six or eight or ten inches, one can so easily get an adequate specimen for examination. On that specimen properly and adequately taken we make our examination and are able to advise the patient to go through a serious major operation if it is so indicated.

Now when we are really facing that sort of an issue we really want to know the whole truth about it and the only way you can do that is to give the pathologist a chance and he deserves a chance because if you hang a diagnosis of cancer on the patient and he hasn't cancer it is a very serious offense.

This subject that has been opened up this afternoon—carcinoma of the cervix and the study of biopsies, so thoroughly studied by the essayist—has been most illuminating to me and it shows the character of work that is being carried on and I admonish you to continue it and make it more general in its adoption. You can use the pathologist to interpret specimens to safeguard the patient and when you get a biopsy, make it an adequate one. I thank you.

BIBLIOGRAPHY

Neely, J. Marshall: The Value of the Biopsy, J. Lab. & Clin. Med. 21:1124 (Aug.) 1936.

Hellwig, C. Alexander: Biopsy in Tumors, Archiv. Path. 13:607-653 (Apr.) 1932.

Wellbrook, Wm. L. A.: The Value of Biopsy, J. S. Carolina M. A. 28: No. 4.

McGraw, A. B., and Hartman, F. W.: Present Status of the Biopsy. J. A. M. A. 101: 1205-1208 (Oct. 14) 1933.

Doege, Paul F.: The Pros and Cons of Biopsy, Wisconsin M. J. 33 184-187 (Mar.) 1934.

Essential Hypertension*

JAMES S. McLESTER, M.D.
Birmingham, Ala.

The practice of medicine changes. Yesterday one group of diseases with their peculiar problems confronted the physician, today another group demands attention, and tomorrow yet another group will dominate clinical thought. Fifty years ago physicians were occupied largely with the prevention and treatment of infectious diseases. Epidemics of typhoid were frequent and in many localities it prevailed the year round. This disease cost thousands upon thousands of lives. Malaria caused an enormous amount of debility and many deaths; yellow fever recurred in epidemics, as occasionally did diphtheria; the intestinal diseases of infancy took a terrible toll. As a result, human life was shortened enormously.

Now, all of this is changed. Today typhoid fever is a rarity and is no longer of importance in mortality tables; yellow fever is a disease of the past; diphtheria occurs only rarely; malaria is rapidly disappearing; and the intestinal disorders of infants are of infrequent occurrence. All of this has been possible of accomplishment because of great advances made within the memory of many of the physicians here tonight in the science of immunology and because of radical improvements in the field of sanitation. The most devasting of the infectious diseases have been stopped through protective measures developed by immunology; water supplies everywhere are safe, and commercial milk is produced under the most rigid sanitary control. In the end, infectious diseases which in the past carried away enormous numbers of young people have been conquered, and the average length of life has been greatly extended.

That is yesterday's story, familiar to every one. Less familiar is the story of today, a story that concerns chiefly the opposite end of life. The lengthening of human life of which I have just spoken has been accomplished by saving the lives of infants and young people, not by prolonging the period of man's vigor or by postponing his senility. In spite of the fact that the average length of life has been greatly extended, that period of man's greatest vigor and usefulness, the period which we call the prime of life, has not been lengthened by a single day. For the man who reaches middle age in full vigor and would postpone the onset of senility, science has done but little. The hazards which confront the man of forty-five years remain essentially the same.

What are those hazards? Among the diseases which debilitate men and women of middle age the most common and the most crippling are those of the cardiovascular system. It is fortunate that rheumatic fever, one of the chief causes of cardiac injury in the Northern states, occurs with relative infrequency here in the Gulf states. True, rheumatic involvement of the heart without arthritis does occur more often in the South than is commonly believed, but in comparison with other forms of circulatory impairment this type of cardiac disorder does not bulk large. The circulatory disorders which are most common in the Southern states are those of the so-called degenerative type. Such diseases may manifest themselves suddenly and in a highly critical form, or they may be extremely slow in their progress and debilitate the person gradually, and only in the course of years.

Typical of the former group is coronary occlusion, a cardiac accident which occurs today with distressing frequency. This accident most often attacks men in the early or middle fifties and with surprising frequency physicians. Just why you and I are especially subject to coronary occlusion it is difficult to say. Perhaps we do not get enough sleep or enough diversion; perhaps our hours of work are too long. The explanation has been offered that the physician experiences more constant nerve strain and that he meets in his daily life more crises than do other men, but this interpretation is not an entirely satisfying one. The ultimate explanation must be sought in the cases underlying arterial diseases, and that problem is yet to be solved.

Of still greater interest to the physician, because of their widespread occurrence, are the cardiovascular diseases belonging in the other group, those which progress more slowly. They are not as graphic or as suddenly alarming, but they are equally serious. Notable among these is essential hypertension. This is a clearly defined disease entity, distinct, it should be noted, from those other well-known disorders of which increased vascular tension is a feature. Glomerular nephritis and the sclerotic form of Bright's disease, for example, are always accompanied by elevated blood pressure, but these diseases are clearly to be distinguished from essential hypertension. The kidney impairment of the latter disease comes only as a late manifestation and is not evident in its early stages; if renal damage is a factor in its causation it is not of a type known today or recognizable by any means at the disposal of the pathologist. In addition, there are numerous other disorders, notably those of the endocrine organs which exhibit high blood pressure as a salient, but subordinate feature. Witness the elevation of pressure which occurs in disorders of the pituitary and the adrenal cortex and sometimes in thyroid disease. It should not be confused with that of the disease under consideration.

---

*Ewing Fox Howard Oration, Mississippi State Medical Association, Jackson, Miss., April 19, 1938.

Essential hypertension, while fraught always with serious possibilities, is in its beginning seldom immediately grave. True, the type called malignant hypertension progresses rapidly and in a stormy manner and brings early disaster, but fortunately this form of the disease is relatively rare. Ordinarily, essential hypertension is slow in its progress, and for years may persist in a mild form without obvious manifestations. Sooner or later, however, significant symptoms appear. At first, depending in all probability merely upon a spasm of the smaller arteries, there is moderate elevation of blood pressure with such mild symptoms as headache, transient vertigo, insomnia, cardiac palpation, easy exhaustion, digestive disturbances and vague aches and pains. Then later, perhaps years later, as organic changes take place, these symptoms, notably those referable to the heart and central nervous system, become more pronounced and more insistent. Finally, as damage to the heart, kidneys and arteries becomes extensive there comes, only too often, some terminal event such as cardiac failure, uremia or cerebral hemorrhage.

What initiates this series of events is today a matter of surmise. Many of the theories of the past must definitely be discarded. Preexisting Bright's disease, high protein diets, too much salt in the food and many other factors predicated in the past, are now known to play no part in initiating essential hypertension. On the other hand, long sustained nerve tension and a life full of emotional strain, may play an important part. Whether these influences play a primary role or merely a subordinate one is yet to be seen. There is, however, one factor which stands out above all others as of determining influence; that is, heredity. Many people, as can readily be read in their family histories, are unquestionably born with a predetermined tendency toward arterial disease, and come into the world easily subject to cardiovascular accidents. It can be said, therefore, that the only effective way known today by which to escape arterial hypertension, is to choose one's ancestors with care.

It is encouraging to find, however, that this problem is being brought into much clearer perspective by recent animal experiments. The most significant of these are the experiments of Goldblatt who has been able through partial compression of the renal arteries to produce in dogs a lasting hypertension. When the constriction, involving both renal arteries, is not great and there is little or no disturbance of kidney function, the resulting hypertension resembles the milder essential hypertension of man. When the constriction is severe and there is appreciable kidney damage then the condition resembles the rapidly fatal type of malignant hypertension. This is the nearest experimental approach yet made to the essential hypertension of man.

The mechanism by which the ischemic kidney produces hypertension is the subject of much speculation. That the hypertension is not due to mere loss of renal function is evidenced by the fact that removal of both kidneys will not produce this picture. That it is not the result of nervous influences emanating from the kidney has been demonstrated by Blalock and others who have found that preliminary denervation of these organs will not prevent development of the hypertension. It has been found that the increased vascular tension thus produced is merely temporary if only one renal artery is compressed, but that it will become permanent if at the same time the opposite, undamaged, kidney is removed. Apparently an undamaged kidney with an intact blood supply can nullify pressor effects coming from an ischemic kidney. After exploring many possibilities Goldblatt is inclined to attribute the increased vascular tension produced by construction of the renal arteries to a humoral mechanism. He suggests that there is an accumulation within the kidney of some pressor-like substance which may have a pressor action similar to that of a hormone.

Whatever the exact mechanism through which these changes come about these discoveries can be summarized by the statement that in the dog diminution of the blood supply of both kidneys will, without recognizable impairment of renal function, lead to the production of a substance that elevates blood pressure. If the results of these animal experiments can be applied to humans then it can tentatively be assumed that the essential hypertension of man is due primarily to a slowing down of the blood flow in the renal arteries or in the glomerular capillaries. This assumption, if validated, will bring us definitely closer to the solution of the human problem, but much will still remain for elucidation. The machinery by which the renal blood supply is reduced, whether by spasmotic contraction of the arteries or by some other mechanism is yet to be determined. When that has been done, then we shall not be far from a final solution of the problem.

In spite of the uncertainties that surround present-day knowledge of essential hypertension there is nonetheless a great deal that can be accomplished toward the alleviation of the patient's distress and the prevention of ultimate catastrophy. Of great importance among such measures is the relief of nervous and emotional strain. To show the patient how to relax, to teach him habits of thought and a philosophy of life which will permit him calmly to dispose of the annoyances and worries which come to him, and to inculcate in him deliberation rather than hurry, is all highly important. He should learn the necessity for frequent vacations, for an hour's rest in a room alone each day after the mid-day meal, and for a full eight hours' sleep each night. If he is one of those high strung men who have no hobbies and know nothing but work, he should be encouraged to develop an avocation and to learn how to play. True, physical exercise can easily be over done by the man of middle age, especially if his heart is beginning to feel the wear and tear of life, and strenuous exercise is always to be avoided, but for the patient of sedentary habits, a certain amount of exercise, always within limits, such as walking, golf, or horseback riding, is to be advised. Alcohol is to be avoided. Good hygiene is essential always.

Contrary to popular belief, dietary restriction, provided the patient is not a gourmand, accomplishes nothing. The rigid limitation of protein advised in the past was not only without value, but it often did real harm. Protein restriction when rigidly adhered to inevitably will not only lessen the patient's vigor, but will also impair his efficiency and may even shorten his life expectancy. True, the obese person must curtail the total quantity of his food to such an extent as gradually to lose weight, but for the patient of normal build a moderately limited, but well balanced, diet is essential. Such a diet should provide a pint of milk daily, an abundance of fruits and vegetables and moderate amounts of eggs and meats as well as of other foods. Undue emphasis should not be laid upon any one type of food. Moderation is everything should be the the key note of the patient's life.

It should be said, too, that the custom of restricting sodium chloride beyond that which the normal person would ordinarily eat accomplishes nothing. Indeed, a true salt-free diet, long continued, will produce grave weakness and otherwise impair the patient's health. He should be permitted reasonable amounts of salt.

No known drug has any lasting effect on blood pressure, and the giving of drugs for the cure of arterial hypertension, is futile. Having said this, I hasten to add, however, that in the effort to tide the patient over a vascular crisis or to avert threatened disaster, nitroglycerine sometimes works wonders. It is obvious, too, that drugs which tend to correct some complicating disorder, such as theelin during the menopause or iodine in hyperthyroidism, are in suitable cases of great value. As a rule, however, the greatest benefit in essential hypertension comes from the giving of mild sedatives such as chloral and luminal which will permit the patient properly to relax and thus will sometimes have a happy effect. Beyond this, drugs are of little value.

What does surgery offer? Little is claimed for surgery in those cases which have progressed to the point where there is serious impairment of the heart and kidneys, but for operation undertaken relatively early in the disease a great deal is claimed. Two types of operation have been devised, resection of the anterior spinal nerve roots, and resection of the splanchnic nerves. Both have as their object the removal of the constrictor influences which the nerves exert over the blood vessels and consequently dilatation of these vessels with a lowering of blood pressure. It would appear that the former method gives greatest promise. This operation has given best results in relatively young persons in whom emotional factors play a dominating role, and in those with malignant hypertension. Older patients whose hypertension has been of long duration have not experienced appreciable benefit; they, therefore, are definitely less suitable for surgical ventures. Page and Heuer have reported good results in a number of cases, including unexpectedly brilliant results in a few cases of malignant hypertension. True, the blood pressure in all cases continues as a rule to show the usual trend upward in spite of the operation, so one cannot speak definitely of a cure. In an encouragingly large proportion of instances, however, there has been a highly satisfactory symptomatic improvement. Relief from the nervousness, the irritability, the headaches and the easy fatigue has been sufficiently frequent to be significant.

It is too early yet finally to evaluate surgical treatment, but in view of the animal experiments which I have just quoted certain comments are pertinent: Mere relaxation of the general vascular system will probably accomplish no lasting good because it does not get at the root of the trouble. If, however, nerve resection will effectively relax the arteries that supply the kidneys with blood and thus improve the circulation of these organs, then it may be possible in this manner to remove the source of the trouble and to relieve the hypertension. The consensus of opinion among those who have interested themselves in this method of approach to essential hypertension is that, for the majority of patients, rest and like methods of medical treatment are still to be preferred, but that for selected patients, notably youthful persons with an emotional body ground, and those with malignant hypertension, surgery without great hazard, offers for a time at least fair promise of relief. That expresses my own view.

There is yet another approach to this disease, which is based upon the fact that hypertension ranks among the diseases of advancing years. True, this disorder is occasionally seen in extremely youthful persons, but nonetheless it is believed to be an expression of the wear and tear of life and, therefore, to belong among the degenerative diseases. Can anything be done to lessen the effects upon man of such wear and tear and thereby to postpone senility? If we are permitted to apply to man the lessons learned from nutrition experiments upon the lower animals, then we can answer yes. This holds a distinct element of promise.

A deficient ration will impair an animal's well-being and bring early senility. Under certain circumstances it will also bring premature changes in the physiologic area under discussion, in the vascular system. King and Menten, for example, have shown that lack of Vitamin C in the diets of guinea pigs, plus an infection, often produces in the arterial wall a thickening which bears distinct resemblances to the arterial changes of man. Control animals whose diets contain an abundance of this vitamin do not show these changes. This suggestion that vascular disease can possibly be prevented by guarding against dietary deficiency opens up an entirely new vista of possibilities.

These possibilities, it should be noted, are not limited to the mere prevention of disease by the correction of obvious nutritional faults. Much more can be done. It is now known that the well-being and stamina of animals, already healthy, can be improved still further by suitable additions to rations which previously had been regarded as entirely adequate, indeed that such fortification of an apparently adequate diet will result in a longer period of youthful vigor and greater life expectancy than the animal had previously enjoyed. Witness the experiments of Batchelder whose rats, being in good condition and beginning with a diet which apparently was entirely suitable, were fed rations of increasing Vitamin A content through successive generations with constant improvement in health and well-being. This investigator found that the more liberal the intake in this respect the greater the health and vigor of the animals and that the highest degree of vigor was exhibited by those rats which received an amount of Vitamin A four times that necessary to protect against mere deficiency. These benefits were found to extend even to the second generation. Similar observations have been made in the case of other essential food factors, and it is today becoming increasingly evident that the words adequate and optimum as applied to diet are by no means synonymous. If by making suitable additions to the already adequate diets of experimental animals it has been possible to prolong the youthful vigor of these animals and to postpone the degenerative change of age, what can be done for man? Accepting the diet of the average person as adequate (which in reality it is not) can that person's vigor be enhanced and his period of usefulness be lengthened by such well-chosen additions to his food as will provide an approach to the optimum? I am encouraged to believe that this can be done.

Physicians have long endeavored to influence hypertension by dietary means, but their efforts, based upon a false premise, have been in the wrong direction. The patient has been told what he must not eat when he should have more properly been told what he must eat. Obviously additions, however well-planned, to the diet of a person suffering already with essential hypertension will not in any way alter the course of the disease. That is asking too much. I hope I am not unduly sanguine, however, when I say that general improvement in the nutrition of the race, such as would come from a general increase in the consumption of vitamins, minerals, and other essential food factors, especially in childhood, can reasonably be expected to extend the period of man's youthful vigor and thus to lengthen the prime of life. When this has been done there will in all proability be a reduction in the frequency of arterial disease.

MISSISSIPPI STATE MEDICAL ASSOCIATION
Organized 1867

OFFICERS

President	Joseph E. Green, Laurel
President-elect	J. P. Wall, Jackson
Vice-presidents	M. Q. Ewing, Amory R. B. Austin, Forest B. T. Robinson, New Augusta
Historian	Leon S. Lippincott, Vicksburg
Editor	Leon S. Lippincott, Vicksburg
Speaker	J. Rice Williams, Houston
Secretary	T. M. Dye, Clarksdale
Treasurer	E. LeRoy Wilkins, Clarksdale

COUNCIL

First District	J. W. Lucas, Moorhead
Second District	L. L. Minor, Rt. 4, Memphis, Tenn.
Third District	R. B. Caldwell, Baldwyn
Fourth District	T. J. Brown, Grenada
Fifth District	Lawrence W. Long, Jackson
Sixth District	H. Lowrey Rush, Meridian
Seventh District	J. Gould Gardner, Columbia
Eighth District	W. H. Frizell, Brookhaven
Ninth District	D. J. Williams, Gulfport

COMMITTEES

Constitution and By-Laws: A. P. Alexander,Como; W. W. Crawford, Hattiesburg; W. H. Frizell, Brookhaven.

Budget and Finance: B. S. Guyton, Oxford; D. C. Montgomery, Greenville; John B. Howell, Canton.

Public Policy and Legislation: F. J. Underwood, Jackson; Henry Boswell, Sanatorium; W. H. Anderson, Booneville.

Publication: Leon S. Lippincott, Vicksburg; G. S. Bryan, Amory; L. V. Rush, Meridian.

Program: The Secretary and the Chairmen of Sections.

Constitution and By-laws: A. P. Alexander, Como (one year); W. W. Crawford, Hattiesburg (two years); W. H. Frizell, Brookhaven (three years).

Budget and Finance: B. S. Guyton, Oxford (one year); D. C. Montgomery, Greenville (two years); John B. Howell, Canton (three years).

CHAIRMEN OF SECTIONS

Medicine	W. H. Anderson, Booneville
Surgery	L. W. Long, Jackson
Hygiene and Public Health	N. C. Knight, Clarksdale
Eye, Ear, Nose and Throat	W. L. Hughes, Jackson

Mississippi State Medical Association

Leon S. Lippincott, Vicksburg .... Editor
J. S. Bryan, Amory .... Associate Editor
Leslie V. Rush, Meridian .... Associate Editor

Papers and news material for publication should be received not later than the fifth of the month preceding publication.

The editors are not responsible for statements made by any contributor.

Manuscripts and all material for publication should be addressed to the editor, P. O. Drawer 231, Vicksburg, Mississippi.

EDITORIALS

FROM OUR PRESIDENT

TO THE MEMBERS OF THE MISSISSIPPI STATEE MEDICAL ASSOCIATION:

Dear Friends:

I fully realize and appreciate the honor you have bestowed upon me in elevating me to the highest office in your gift. But with every honor there comes a feeling of responsibility, and to merit that honor, I must put every effort to prove it—not in words, but through hard work. I promise to work and pray, so that when I shall have surrendered the gavel placed in my hands by your vote, the affairs of our Association will have gone forward.

I am a very busy man trying to make an honest living, but this will certainly not interfere with my duties as president of the Association. There are many things that I hope to discuss with you during the year, and as stated to the House of Delegates, I now say to you that there is no closed season on the president or the chairmen of the various sections who are: Dr. L. W. Long, Surgery; Dr. Norris Knight, Hygiene and Public Health; Dr. W. L. Hughes, Eye, Ear, Nose and Throat; and Dr. W. H. Anderson, Medicine. Just feel free to shoot at us any time you feel like it. It will be impossible for me to visit all of the county societies but I do hope to at least visit the larger societies and hope you will honor us with your presence when we visit your society, as we shall need your advice in working out a program in keeping with those we have had for the last few years.

During the past 15 years, we have been hearing much about state medicine and it is the belief of a large number of our physicians that unless the physicians outline some plan to combat it that it may be a reality which would be a sad day for both the medical profession and the patient because, should that come, the young doctor will be classed as a brick layer or something else, with instructions given daily by some authority as to what he can and cannot do. The patient will not receive the efficient service that he does under our present relationship of the family physician to his patient.

Unfortunately, much has been written on the subject but there is little that we can get from literature that can help us and I am taking the position that there are enough brains among the physicians of Mississippi, if I can get them to work and give me their ideas, that we can work out a plan that might help in combating that evil.

I also want to have a heart to heart talk with the physicians regarding medical ethics and what, if anything, we can do to enhance rural practice so that it will be attractive to the young men and furnish adequate medical care to the people.

We are indeed fortunate in having that able, scholarly gentleman, Percy Wall, as president-elect of the Medical Association. He has promised me his whole-hearted and unselfish support so you may expect to have both the president and president-elect present when visiting your societies.

In conclusion, may I again plead with you for your whole-hearted co-operation in trying to make this the outstanding year in the history of the Mississippi State Medical Association.

Humbly and sincerely,
Laurel, Jos. E. Green,
April 22, 1938. President

FROM OUR RETIRING PRESIDENT

TO THE MEMBERS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION:

I appreciate very much the co-operation and good fellowship of the doctors of our state in making the past year one of the best in the history of our State Medical Association.

The membership has made a substantial increase and there has been greater enthusiasm with increased attendance at all society meetings.

Our meeting at Jackson was one of the best because of well-selected programs, an unusually large attendance, plenty of entertainment, ample hotel accomodations, and at rates less than we usually pay.

I hope that the co-operation and enthusiasm among the members of our profession which have shown such wonderful progress during the past few years will continue, and that my successor, Dr. Joe Green, will receive even greater support than I have had, and that his administration will show a better record of membership, support of the activities of our State Medical Association, and the State Board of Health, than at any time during the history of our Association.

I wish to thank each one who has contributed a part in my efforts to advance the best interests of our organization, and to assure the profession of my loyal and continued support. I am,

Yours fraternally,

Wesson. W. L. Little.

NEW OFFICERS

President, Dr. Joseph E. Green, Laurel; President-elect, Dr. J. P. Wall, Jackson; Vice-presidents: Northern Division, Dr. M. Q. Ewing, Amory; Central Division, Dr. R. B. Austin, Forest; Southern Division, Dr. B. T. Robinson, New Augusta; Associate Editor, Dr. L. V. Rush, Meridian; Speaker of the House of Delegates, Dr. J. Rice Williams, Houston; Councilors: Fourth District, Dr. T. J. Brown, Grenada; Fifth District, Dr. Lawrence W. Long, Jackson; Sixth District, Dr. H. Lowry Rush, Meridian; Committee on Constitution and By-Laws: Dr. W. H. Frizell, Brookhaven, and Dr. A. P. Alexander, Como; Committee on Public Policy and Legislation, Dr. W. H. Anderson, Booneville; Committee on Budget and Finance, Dr. John B. Howell, Canton; Delegate to the American Medical Association, Dr. Felix J. Underwood, Jackson; Fraternal Delegates: To the Alabama Medical Association, Dr. C. J. Lewis, Meridian; To the Arkansas Medical Association, Dr. Hugh A. Gamble, Greenville; To the Louisiana State Medical Society, Dr. W. L. Little, Wesson; To the Tennessee State Medical Association, Dr. P. W. Rowland, Oxford.

The above officers were chosen at the 71st Annual Session of the Mississippi State Medical Association and the 35th Annual Session of the House of Delegates at Jackson, April 21. Congratulations and best wishes are extended to those who, with others, have assumed the important duties of guiding the affairs of the Association in a year of great potential achievement.

Dr. Joe Green was installed as president. Active participation for many years in the affairs of the Association and experience as councilor of the eighth district will prove most valuable. It is his avowed intention to keep in close touch with all of the component societies, to encourage the younger members of the Association to participation in activities of organized medicine and to circumvent any attempts at the establishment of "state medicine" in Mississippi. His administration should be successful.

Dr. Percy Wall is the president-elect by acclamation, truly a real honor, well deserved. Dr. Wall is well known throughout the state and for the past six years has served as speaker of delegates with unusual distinction. Incidentally he was the first and only speaker the house of delegates has ever had. During the coming year, Dr. Wall will be in charge of organization under the direction of the president and will direct and advise with the vice-presidents in this important phase of Association work. He intends to visit all component societies perhaps more than once. His election should mean an increased and more closely co-operative membership.

The vice-presidents were elected at the Jackson meeting. All have been active in their component societies and in their districts. The honor is well deserved in every case and organization under their direction should bring about definite further progress of the Association.

Dr. L. V. Rush was elected associate editor and member of the publication committee for two years. He has long been an active worker in the medical affairs of east Mississippi and his counsel and advice will mean much to this phase of the work of the Association.

A wise and popular choice was that of Dr. J. Rice Williams, of Houston, as speaker of the House of Delegates. He has a wide knowledge of parliamentary law gained in numerous positions in other organizations and was a member of the Committee on Constitution and By-Laws at the time of his election. The office of speaker requires qualifications possessed by few doctors and confidence in Dr. Williams was demonstrated by unopposed election.

Dr. T. J. Brown, Grenada, and Dr. H. Lowry Rush, Meridian, because of outstanding efficiency and results obtained in office, were continued as councilors of the fourth and sixth districts respectively. Dr. Lawrence W. Long, Jackson, was elected councilor of the fifth district. He was a vice-president of the Association during the past year, has served as president of the Central Medical Society and for a number of years has been secretary of that society. He worked untiringly as a member of the committee on arrangements for this year's meeting. He should be an efficient councilor.

Dr. W. H. Frizell, Brookhaven, chairman of the Committee on Constitution and By-Laws, was continued as a member of that committee for another three years. Dr. Frizell has served the Association long and faithfully in many positions of trust including the presidency of the Association and as secretary of the Council. Dr. A. P. Alexander, Como, was elected as a member of the committee for one year, succeeding Dr. J. Rice Williams. He is a member of the North Mississippi Medical Society. With Dr. W. W. Crawford, Hattiesburg, the third member of the committee, the constitution and by-laws of the Association will be in safe hands.

Dr. W. H. Anderson, Booneville, for many years a member of the Committee on Public Policy and Legislation, and chairman during the past year, was re-elected to serve another three years. Dr. Anderson has worked hard for the Association for many years and is the publisher of **The Mississippi Doctor**, the official organ of the Association. His continuation on one of the most important committees, with Drs. Felix J. Underwood, Jackson, and Henry Boswell, Sanatorium, means that the interests of organized medicine in Mississippi will be well protected.

Dr. John B. Howell, Canton, was the unopposed choice to succeed himself as a member of the Committee on Budget and Finance, a position he has held with Drs. B. S. Guyton, Oxford, and D. C. Montgomery, Greenville, for many years. Dr. Howell is well-fitted for this important position as guardian of the Association's funds.

Dr. Felix J. Underwood, Jackson, was reelected by acclamation as delegate to the American Medical Association. Dr. Underwood is more widely known throughout the country than any other member of the Association, has had wide experience in the councils of the national association, and should remain Mississippi's representative for many years. He has held numerous offices in the Association and is a past president.

Congratulations to the new officers.

Congratulations to the association in their selection.

RESPONSE TO WELCOME ADDRESS*

W. H. Anderson, M.D.
Booneville, Miss.

Would that I could express in words what my heart feels that this occasion demands, but we must confess that our vocabulary center is inadequate, just as the thousand practitioners we represent are unable to accomplish what their professional vision perceives and their missionary hearts yearn to do. But we take courage as we speak in behalf of the practitioners of Mississippi since we believe that success is not alone to the mighty and to the able, and that it is not always measured by the bigness of the job accomplished, but by the vision one has, by the will to do, and by the effort put forth against the odds.

We appreciate the generous welcome of the city attorney representing Mayor Scott, the official head of the cross-roads metropolis of the New South and its fastest growing city. We were awed at the power of Long of Louisiana, we marvel at the influence of Crump of Memphis, we are transfixed by Franklin Roosevelt's words over the radio, but for smooth, easy, unobserved, ever ready and always successful political sagacity with patriotic intent, your Honorable Walter Scott holds the All-American banner. We are very grateful to Dr. Frank Hagaman, the brilliant, oratorical and successful surgeon of your city, for his very warm and gracious welcome, which could only be surpassed by the eloquent acts of kindness of the members of his society, now the most progressive local group in Mid-Dixie.

We are so happy to be with the doctors of Jackson and the Central Medical Society because you convince us by kind and generous deeds that there is no line of division in your mind between the doctor of the largest city in the state and the practitioner in the most distant rural community. We love to feel that we are all one in the great cause of medical service. We are proud of our president who graces this occasion tonight typifying the fine family physician who is yet the corner stone of medicine and who with his professional mind, his medical soul and his missionary heart has performed a service as noble, as valuable and as patriotic as any soldier who ever marched in battle or sailed the sea. Say and think what you may, but the biggest opportunities of the general practitioner are yet ahead. Stonewall Jackson was the right arm of Robert E. Lee, the most illustrious and the most beloved general the world knows, and tonight we would not forget our president's right arm, the practitioner's helper, the forgotten woman, or rather the under-appreciated woman, the practitioner's wife. When the book of justice is opened, when the deeds of valor and patriotism, of love and mercy, of self denial and sacrifice, of patience and co-operation are read out and awards distributed, they will not all go to the generals of the battlefield, to the lords of business, to the pleaders of the law, nor even to the expounders of the gospel, but many we believe to the wives of the practitioners of medicine. With their social integrity, mental resourcefulness, and religious poise, they have aided every good cause and have nursed their own sick children alone many times while their husbands gave their best service to others.

The urgent need of today is the application of known medical truths. We hail the Central Medical Society as the advance guard in the efficient and artful utilization of the approved medical and surgical knowledge out on the commercial firing lines of human society. Jackson is rapidly becoming a recognized medical center. It is generously supplied with hospitals and well balanced with practitioners and specialists. We would not forget that Jackson gave to the profession Dr. Willis Campbell whose reputation as an orthopedic surgeon is known around the world. We are not unmindful of the noble Dr. H. A. Gant, who did such fine work on the State Board of Health for many years in the fight on yellow fever. In the discovery of the offending mosquito he was a member of Columbus's expedition, so to speak. You have many men in your ranks who deserve honorable mention as the brilliant Barksdale, the scholarly Shands, the versatile Wall, Garrison and Long, the organizers with vision, Blake the orthopedist, Henthorne, the pathologist and Bethea, the radiologist—and we would not forget one who has passed to his reward, the able, the noble and the beloved surgeon, Dr. Julius Crisler.

---

*Address presented at the public meeting at the seventy-first annual session of the Mississippi State Medical Association, Jackson, April 19, 1938.

Just why your town became our capital city we do not know. The capital flitted about and then seemed to be drawn here like the witch's stick. We suppose it was the drawing power of this river of gas, which is now one of the largest fields in the world. What has made Jackson the fastest growing city in the South? Well, it has a gold coast, and you have read of the gold rush to California.

Andrew Jackson won a victory at New Orleans over the British that caused the scrap of paper that had already been signed to be respected to this day. He married at Natchez, and in his campaign for the presidency he spoke in this city. The farewell speech of Jefferson Davis in 1884 must have charged the atmosphere of Jackson with the spirit of courage, patriotism, and loyalty to conviction. The national orator of antebellum days, the silver-tongued, spell-binder, a native of Maine and a citizen of Vicksburg, the man who could move the head and the heart at the same time, Seargent Smith Prentiss, made this city renowned with his eloquence. The greater pacificator, Henry Clay, visited Jackson and spoke in its first capitol house. Senator J. Z. George, the legal Solomon of this country lived in Jackson while serving as Chief Justice of the Supreme Court. For many years Bishop Galloway was a citizen of your city and expounded the truths of the Gospel with invincible power and moving eloquence, being to his noble calling what William Jennings Bryan was to the Democratic party. But lest you think Jackson is a Jerusalem rather than a regular city, we mignt mention a few characters more human. A man by the name of Ames came down from Maine—one of the two Republican States you will recall. He lived here with you as your governor. For a while there lived with him a lieutenant governor and a state superintendent of education, these two of a different color, but of the same creed. There sprang up a little unpleasantness in their administration and they withdrew, the governor returning from whence he came. This governor died not so long ago at the age of 99. And then there was that man Sherman, who mired down with his train of cannons one very hot day here in Pearl River bottom and being hot and bothered described war in three words. Some people think yet he has gone where we hope he "aint."

We notice in the hotels the air schedule going in every direction, which just shows that it is a fast city—fast growing; but we overheard a remark on the street that it had been slowed down quite a bit since so many WPA workers came in.

We learn from an advertising pamphlet that Jackson has thirty million dollars on deposit, or in cold storage, rather. We used to think we could not get along without banks, but now we don't even use the active vice-presidents for blood transfusions.

Jackson is a city of two capitols and we understand it is to have another soon, the Tower Building. This is very considerate; many of the office holders will feel at home up in the air.

Of course, Jackson is not quite large enough to have a medical journal, but we do want to congratulate your city on the publishing of two fine dailies. One recently celebrated its 100th birthday with one hundred and ninety-two pages, an issue that would be a credit to any city in the world. Every Mississippian should have a copy of it and read it over and over again and lay it away. This daily is cautious and careful, chaste in its editorial language and conservtive with its news. The other one, like Peter of old, uses strong language at times and maybe swears a little, but we must admire his editorial courage and respect his writing ability. We are delighted that Jackson has a press that is free, speaks its convictions and does not have to wait for orders out of town. A free press has and will ever be the hope of the social, economical, and political health of the nation. It is doubtful if our medical press is as free as it should be throughout the country.

We appreciate the fine service of the wonderful hotels of Jackson with their illustrious names. With their sincere Southern hospitality they seem to individualize on each of one hundred and seventy-five conventions they play host to each year.

Your civic pride, educational atmosphere, and religious poise, all seasoned with stablizing industry and enough politics to furnish diplomacy, warmth, and energy, make Jackson delightful as a convention city and insures continued rapid growth and longevity.

And by the way, who knows but that the keen-observing and courtly Mr. C. P. Loranz, business manager of the Southern Medical Association, whom we are delighted to have present tonight, might like to bring his association here one of these years soon, bring it to the fastest growing city in the South located at this Cross Roads of Mid-Dixie, a regular city of regular fellows well born by inheritance and thoroughly Americanized.

And now as a final word, Mississippi with her seventy-five hospitals, well dispersed over the state with funds for the indigent sick distributed on a percapita basis, with postgraduate courses being carried to the busy practitioner, with a public health service second to none in the United States, with modern clinics increasing and hospital insurance at a cost price available to the larger centers, the masses are being offered, we believe the best medical service in this nation.

Our set-up is not quite complete. Additions to your general hospital for the treatment of cancer and the crippled should be added. Then with the Mississippi State Hospital, headed by the able and devoted Dr. Mitchell, and our modern Sanatorium with the far-seeing Dr. Boswell as its superintendent, we can offer a two-year internship and set the pace the world over for the application of modern medicine to one and all. Let me express our appreciation for the co-operation of Jackson and the Central Medical Society in the development of rural medicine throughout the state and let us hope that you will see that this central hospital is secured as urged by our beloved president, Dr. Little. Let me thank you again for your big co-operative hand and your lavish entertainment.

MISSISSIPPI STATE HOSPITAL ASSOCIATION—NEW OFFICERS

President, Dr. H. Lowry Rush, Meridian; Vice-President, Dr. Gilruth Darrington, Vicksburg; Secretary-Treasurer, Dr. Leon S. Lippincott, Vicksburg; Board of Directors: Dr. H. Lowry Rush, Dr. Gilruth Darrington, Dr. Leon S. Lippincott, Dr. J. Gould Gardner, Columbia, Dr. A. Street, Vicksburg.

—Hospital Service Corporation of Mississippi—

President, Dr. A. Street, Vicksburg; Vice-President, Dr. J. Gould Gardner, Columbia; Secretary, Dr. Leon S. Lippincott, Vicksburg; Treasurer, Dr. J. P. Wall, Jackson; Board of Directors: Dr. A. Street, Dr. J. Gould Gardner, Dr. Leon S. Lippincott, Dr. J. P. Wall, Dr. H. Lowry Rush, Meridian; Dr. Gilruth Darrington, Yazoo City, Dr. V. B. Philpot, Houston.

MEDICAL LICENSE EXAMINATIONS

The Mississippi State Board of Health will hold examinations for license to practice medicine at the New Capitol, Jackson, June 22 and 23, 1938.

Examinations on the first two years will be held June 22. Candidates should send or bring with them certificate for verification.

Examinations on the last two years will be held June 23. Candidates should send or bring medical diploma for verification.

Application blanks may be obtained of Dr. R. N. Whitfield, Assistant Secretary, State Board of Health, Jackson.

A COMPLETE PROGRAM

What would we think of a person who determined to spend all of his time being honest and yet did not see the necessity of courtesy or punctuality or sympathy? We would call him one-sided and sooner or later due for a fall. The rounded character is one who places all these things in the sphere of importance. At times one or another must hold the field yet never at the expense of others.

The same thing is applicable to our county medical societies. There are those whose interests are in ophthalmology or urology or gynecology or brain surgery or what not, and that is as far as they can go and co-operate. But this is not medicine. If we are to function in accordance with the ideals of the medial profession, all members of the society must be awake to the various aspects of medical practice. We must learn not to substitute a part for the whole.

We have all known certain doctors who are fired with zeal when the program includes papers having to do with their own particular specialities and interests. It is natural that they feel the importance of their particular fields.

Year after year we find them on hand and taking part only when their specialties are being featured. When a paper in which they are interested has been read, they leave or engage others in conversation, either action certainly a discourtesy to an essayist who has worked to present a subject of importance even though in another field. Perhaps if the program does not happen to deal with their specialties they do not come to the meeting at all.

This seems to us to be deplorable. They have not had the opportunity or do not take the opportunity to see other aspects of medicine with the result that they are one-sided doctors. To be true to the ideals of medicine our interests should be more inclusive. Every specialty exists because there is work to do in that field. But, we should feel a general interest because all the work is tied together and one part needs every other. We should know what our society is doing, what the members are doing and what they hope to do, what the profession as a whole is doing. To know that work is being done begets interest and spurs us on to greater things. Remember this is true also the other way, if we would encourage others to work and be interested in our profession, we must ourselves work and be interested.

There are numerous associations and societies of specialists. There is a real need for specialists and their societies. There are too many phases in medicine of to-day for any one man to cover them all and do it as best it can be done. Specialists should attend their special association meetings and better specialists. But, what specialist would not resent any implication that he was not a regular doctor, not a member of the general profession of medicine?

Your county medical society represents the general medical profession. Would it not be wise to attend all of its meetings? It gives an opportunity to see medicine from various angles and keeps a **real** doctor from being one-sided.

I never thought of doing business with somebody else because he was my friend, but I made friends with everybody with whom I did business.—Andrew Carnegie.

MISSISSIPPI STATE MEDICAL ASS'N

In Memorian

J. M. Barnett, Okolona, Aged 61, Died November 7.

T. D. Bourdeaux, Meridian, Aged 58, Died November 23.

E. D. Boozer, Greenwood Springs, Aged 53, Died January 12.

D. M. Busby, Phoenix, Aged 53, Died December 27.

L. O. Carruth, Tupelo, Aged 80, Died August 29.

G. T. Cranford, Seminary, Aged 60, Died September 30.

W. V. Davis, Booneville, Aged 74, Died March 7.

S. R. Deanes, West Point Aged 75, Died November 26.

E. H. BeBerry, Hazlehurst, Aged 65, Died July 18.

L. C. Feemster, Tupelo, Aged 63, Died May 23.

W. W. Hall, Shelby, Aged 60, Died January 1.

Leonard Hart, Meridian, Aged 54, Died January 19.

D. G. Mohler, Laurel, Aged 67, Died August 11.

N. W. Nanney, Fulton, Aged 57, Died December 7.

J. L. Robertson, Learned, Aged 75, Died December 27.

O. H. Swayze, Yazoo City, Aged 66, Died June 13.

M. J. Wilhoit, Water Valley, Aged 54, Died March 4.

T. M. Dye,
Secretary.

MISSISSIPPI DOCTORS DID NOT DIE YOUNG IN 1937

Below are listed the physicians of Mississippi who died in 1937 as announced by the State Board of Health. The ages of death by decades were as follows:

41 to 50 years	2
51 to 60 years	17
61 to 70 years	16
71 to 80 years	6
81 to 90 years	3

The average age of death for the 44 doctors was 62. Only two deaths occurred under 50 years, both in colored physicians. Fifty-seven per cent of deaths occurred after age 60.

Barnett, J. M., Ofahoma, age 61, cerebral hemorrhage, Nov. 7.

Bayne, L. W., Hattiesburg, age 64, chronic myocarditis, Mar. 20.

Bourdeaux, T. D., Meridian, age 58, lobar pneumonia, Nov. 23.

Boozer, E. D., Greenwood Springs, age 53, coronary thrombosis, Jan. 12.

Busby, D. M., Phoenix, age 53, cerebral hemorrhage, Dec. 27.

Carruth, L. O., Tupelo, age 80, heart failure, Aug. 29.

Cole, E. M., Philadelphia, age 55, chronic myocarditis, Mar. 5.

Cranford, G. T., Seminary, age 60, lobar pneumonia, Sept. 30.

Davis, W. V., Booneville, age 74, chronic myocarditis, Mar. 7.

Deanes, S. R. West Point, age 75, mitral insufficiency, Nov. 26.

Beberry, E. H., Hazlehurst, age 65, coronary thrombosis, July 18.

Duke, W. M., Minter City, Age 56, tuberculosis, May 26.

Eggleston, W. M., Vicksburg, age 81, malignancy of head of pancreas, Sept. 20.

Erwin, Horatio (col.), Vicksburg, age 46, lobar pneumonia, Apr. 2.

Feemster, L. C., Tupelo, age 63, acute cardiac dilatation, May 25.

Hall, W. W., Shelby, age 60, apoplexy, Jan. 1.

Hart, Leonard, Meridian, age 54, angina pectoris, Jan. 19.

Huff, J. B., Taylorsville, age 71, cardiac renal disease, June 3.

Jackson, J. R., Hattiesburg, age 81, coronary embolism, Dec. [illegible].

Johnson, D. S. Braxton, age 57, cardiac disease, Dec. 27.

Johnson, R. L. (col.), Jackson, age 66, angina pectoris, July 20.

Lofton, A. C., Lucien, age 61, influenza, Feb. 21.

Mazique, J. C. (col.), Natchez, age 67, diabetes mellitus, Dec. 12.

Mercer, R. L., Shelby, age 69, strychinine poisoning, Sept. 10.

Mohler, D. G., Laurel, age 67, angina pectoris, Aug. 11.

Monroe, A. L., Newton, age 63, coronary thrombosis, Nov. 11.

Myers, S., Vicksburg, age 64, coronary thrombosis, April 30.

McCarty, J. F., Ovett, age 71, bronchopneumonia, April 3.

McMahen, W. A., Union, age 54, uremia, Nov. 15.

Nanney, N. W., Fulton, age 57, duodenal ulcer, Dec. 7.

Reed, M. L. Fulton, age 84, carcinoma of rectum, Feb. 24.

Robertson, J. L., Learned, age 75, chronic myocarditis, Dec. 27.

Robinson, E. E., Meridian, age 60, cerebral hemorrhage, April 6.

Stafford, T. E., Vossburg, age 65, angina pectoris, Nov. 10.

Steen, T. E., Florence, age 65, epithelioma of mouth, May 27.

Stewart, C. W., Oskya, age 59, automobile accident, Oct. 13.

Stone, G. F., Tupelo, age 53, angina pectoris, July 18.

Swayze, O. H., Yazoo City, age 66, chronic endocarditis, June 13.

Tanner, G. S. (col.), Brookhaven, age 42, cellulitis, left arm and right leg, Sept. 26.

Watkins, C. B., Clinton, age 70, cancer of stomach, Mar. 19.

Weimer, H. W., Vicksburg, age 59, coronary thrombosis, Aug. 9.

Welch, L. A., Tylertown, age 68, heart disease, Dec. 12.

Wilhoit, M. J., Water Valley, age 54, cerebral hemorrhage, March 4.

White, J. L., Sand Hill, age 55, lymphatic leukemia, Dec. 3.

UNDERSTANDING AND RESPECT

Knowledge breeds understanding and understanding is the stepping stone to liking and respect. And mutual understanding is, perhaps, what the medical profession of Mississippi needs more than anything else to-day.

Any agency that tends to foster such a spirit of mutual tolerance and a desire to sink individual prejudices in working for the common good, placing the welfare and interests of the patient first, is, therefore, of vital interest to us all. In our medical societies we should and can find that spirit personified.

THE FIELD THERAPEUTIC ARMAMENTARIAN OF THE MEDICAL CORPS OF THE ARMY OF THE CONFEDERATE STATEES

Ernst Theodor Krebs, Jr.,
University, Mississippi

The principal office of history I take to be this: to prevent virtuous actions from being forgotten.—Tacitus.

The rapidity and efficiency with which all branches of the government of the Confederate States were made functional to meet a sectional emergency, has long been of interest to students of government. The medical corps of the Army of the Confederacy well epitomizes the remarkable thoroughness and discipline that characterized all branches of the newly formed Confederacy.

In this historical review of the therapeutic armamentarium for the field service of the medical corps of the Confederate States Army, the author has found temptations to digress into a discussion on the surgical and pharmacologic acumen displayed by the medical corps in its selection of a minimum armamentarium for a field regiment. When thus tempted, he finds the implications encyclopedic; and, therefore, leaves it to the reader to ponder awhile upon the appended enumeration of medical and surgical supplies as described on page 236, Article XLIII, Section 252 of "Regulations for the Army of Confederate States:"

Medicines:

Acidi nitrici	lb. ¼
Acidi sulph. aromaticus	lb. 1
Alcoholis	qt. 1
Aluminis	lb. 1
Ammoniae carbonatis	oz. 16
Antimonii et potass, tartratis	oz. 2
Argenti nitras (fused)	oz. 4
Camphorae	lb. 4
Cerati resinae	lb. 2
Cerati simplicis	lb. 8
Chloroformi	lb. 2
Copabiae	lb. 2
Creasoti	oz. 2
Cupri sulphatis	oz. 2
Emplastic adhoesivi	yds. 5
Emplastic cantharides	lb. 4
Emplastic icthyocollae	yds. 2
Extracti colocynthides comp.	oz. 16
Extracti glycyrrhizae	lb. 2
Hydrargyi chloridi corrosivi	oz. ½
Hydrargyi chloridi mitis	lb. 2
Iodinii	oz. 4
Liquor ammoniae	lb. 4
Liquor potass, arsenitis	oz. 4
Magnesiae sulphatis	dr. 4

Olei menthae piperitae	oz. 2
Olei olivae	bott. 8
Olei rinci	qtt. bott. 12
Olei terbeninthinae	qtt. bott. 8
Olei tiglii	dr. 2
Pilu: Cathartic Comp (US)	doz. 8
Pilu: Opii (US)	doz. 8
Plumbi acetatis	lb. 8
Potassae bitartratis	lb. 2
Potassae chloratis	lb. 2
Potassae nitratis	lb. 1
Potassi iodidi	oz. 8
Pulveris acaciae	lb. 4
Pulveris capsici	lb. ½
Pulveris ferri per sulphatis	oz. 4
Pulveris ipecachuanhae	lb. 1
Pulveris ipecachuanhae et opii	lb. ½
Pulveris lini	lb. 16
Pulveris opii	lb. 2
Pulveris rhei	lb. ½
Pulveris sinapis negrae	lb. 12
Quininae sulphatis	oz. 24
Sacchari	lb. 10
Saponis	lb. 8
Sodae bicarbonatis	lb. 1
Spiritus ammoniae aromaticus	oz. 4
Spiritus aether nitrici	lb. 2
Spiritus vini gallici	bott. 12
Syrupi scillae	lb. 3
Tincture cinchonae comp.	lb. 4
Tincture columbae	lb. 4
Tincture ferri chloridi	lb. 1
Tincture genitianae comp.	lb. 4
Tincture opii	oz. 16
Unguenti hydrargyi	lb. 1
Unguenti hydrargyi nitratis	lb. ½
Vini cholchici seminis	lb. 1
Zinci acetatis	oz. 2
Zinci sulphatis	oz. 2

Instruments

Amputating	sets 2
Ball forceps	no. 2
Bougies, gumelastic (1 to 12)	no. 6
Bougies, metablic (assorted)	no. 6
Catheters, gumelastic (2 to 10)	no. 6
Catheters, silver (3, 6, 9)	no. 3
Catheters, cases	no. 1
Cupping glasses or tins	no. 12
Lancets spring	no. 4
Lancets thumb (with cases)	no. 4
Needles, surgeons (with cases)	no. 12
Pocket sets	2
Probangs	no. 6
Scarificators	no. 2
Splints (assorted)	no. 4
Syringes, enema, (assorted)	no. 4
Syringes, penis, glass	no. 8
Syringes, penis, rubber	no. 8
Teeth extracting sets	no. 1
Tongue depressor (hinge)	no. 1
Torniquets, field	no. 12
Torniquets, spiral	no. 2
Trepanning	sets 1
Trocars (1 small)	no. 2
Trusses, hernia	no. 6

Among the later requisitions we find the stethescope, which Laennec had introduced to European clinics over thirty years before, but for which many American clinicians were still substituting the more direct methods of ausculation: that of laying the ear against the chest of the patient—a practice for which there is still much to be said.

Lest we ascribe all therapeutic progress to the twentieth century, it would behoove us to measure this medical and surgical armamentarium against our own therapeutic concepts, to temper our judgment with the fact that Pasteur's work had not yet become generally known, that Osler had not yet touched the field of therapeutic reform, and that even as simple a diagnostic aid as the sphygmomanometer had to wait forty years longer before general acceptance into medical practice.

Our serum therapeutics, with a few exceptions, were not known, nor were any of our present chemotherapeutics included in this armamentarium; but, could we well dispense with the therapeutic residue here outlined to depend upon all therapy subsequently developed?

This eighty years old armamentarium was compiled forty years before the Oslerian clamour for "rational therapeutics"; but, have we found many agents—just to take a few at random—basically superior to the opium, Dover's powders, magnesium sulphate, tartar emetic, iodine, potassium iodide, or olei rinci. cited in this armamentarium of the Confederate medical corps? Perhaps there is something to be said for a prudent reconsideration of "the tried and true" drug of yesterday before we set it aside to reach for the sample of a new cellophane wrapped drug or a surgical catalogue in the morning mail. Will many of our expensive proprietary drugs serve more fully the needs of the patient than the nonproprietaries of eighty years ago?

Can we say that the armamentarium of the medical corps of the Confederacy does not square with the rational therapy of Osler? Given a keen diagnostic sense, good clinical judgment, and a knowledge of pathology, are there many who could not practice scientific medicine with these therapeutic agents used by the medical men of the Confederacy almost eighty years ago? Indeed, a review of this kit for military medical and surgical practice must make one aware of the soundness and scientific dignity of an art and science that has been little buffeted by the fads and fancies that had already touched a young and lusty nation.

REFERENCE

Regulations for the Army of the Confederacy—1862, West and Johnston, Richmond, Virginia, publishers.

MISSISSIPPI STATE BOARD OF HEALTH

At the request of the medical profession of Humphreys County and representatives of the profession appearing before the Board of Supervisors in regular session at the monthly meeting for April, an appropriation of $2700 was made for syphilis control work to be carried on in strategic centers organized and conducted by the medical profession of Humphreys County with the co-operation of the county health department.

The medical professsion has organized and is conducting treatment centers for syphilis in the following counties: Coahoma, Forrest, Hinds, Issaquena, Jones, Lauderdale, Lee, Pike, Sharkey, Sunflower, Tallahatchie, Warren, Washington.

Dr. J. A. Milne, director of Maternal and Child Health, has been appointed state chairman of Child Health Day. Through county chairmen, a statewide Child Health Day program is being conducted, its slogan being, "Speed Children on the Road to Health."

Family physicians can be of invaluable assistance in furthering this year's Child Health Day objectives: every community to make full use of its facilities to provide safe birth, normal growth, and protection against disease and accident from infancy to maturity.

Dr. Harry E. Handley, associate director, Division of Public Health, Dr. Frank Walker, director of Public Health Studies, and Miss Emilie J. Cross, of the Statistical Division, Commonwealth Fund, New York City, visited Jones, Lauderdale, and Pike Counties during March. The public health program in these three counties is partly financed by this philanthropic organization.

On March 7, Dr. Felix J. Underwood, Dr. H. C. Ricks, director of County Health Work, and Dr. A. L. Gray, director of Preventable Disease Control attended meetings of the State Society for Control of Cancer, called by Dr. Emma Gay, of Biloxi, state commander, Women's Field Army for the Control of Cancer.

Dr. Underwood stated that 750 white people and 500 Negroes died of cancer during 1936.

"The public must learn the danger signs and know when to seek medical examination," he said. "The state needs a clinic for diagnosis and treatment by surgery, x-ray, and radium, all expensive, but effective if secured in time. Knowledge is power only when applied."

Mrs. Marjorie B. Illig and Dr. John W. Cox, both of national headquarters, attended this meeting.

On March 12, students from a Lauderdale County hygiene class visited the State Board of Health, observing the work of the various divisions. The tour was conducted by Mrs. Josephine Jones, supervisor of nursing, Lauderdale County Health Department.

Drs. Felix J. Underwood, H. F. Garrison, Sr., past president of the Mississippi State Medical Association, Lawrence Long, secretary of the Central Medical Society, and Dudley W. Jones, past president of the Mississippi State Medical Association, attended the meeting of the Tri-County Medical Society in Wesson on March 15. They were the guests of Dr. W. L. Little, president of the State Medical Association.

On March 16, Dr. J. A. Milne, director of Maternal and Child Health, addressed a district meeting of Farm Security Workers in Jackson on "Rural Health Problems."

Dr. H. C. Ricks, director of County Health Work, addressed the Hazlehurst Parent-Teacher Association on social diseases, March 8.

Dr. A. L. Gray, director of Preventable Disease Control, spoke on "The Control of Syphilis" to the Cosmopolitan Club of Forest, March 18.

The semi-annual meeting of the Clarksdale and Six Counties Medical Society took the form of a tuberculosis symposium conducted by Drs. Felix J. Underwood, Wm. D. Hickerson, State Sanatorium, J. D. Biles, Memphis, H. F. Garrison, Jackson, John S. Harter, State Sanatorium, and Henry Boswell, superintendent, State Sanatorium.

Dr. Underwood spoke on "The Epidemiology of Tuberculosis."

Miss Velma Owen, supervisor of public health nurses for the east Alabama district, observed public health nursing procedure in Mississippi for ten days during March.

Miss Caroline Benoist and Miss Annabelle Leser, public health nurses from Pike County, are receiving special training at the Chicago Lying-In Hospital for a period of four months.

Dr. J. W. Dugger, director of Industrial Hygiene and Factory Inspection, worked in the Meridian Hosiery Mill during two weeks of March. To 278 employees Dr. Dugger gave tuberculin, x-ray and general physical examinations. He was assisted by the staff of the Lauderdale County Health Department.

Social hygiene was the subject of addresses by Dr. Underwood to the Young Men's Business Club of Clarksdale on March 23, and the Greenville Chamber of Commerce on March 25.

On March 24, Dr. Underwood attended a meeting of Lauderdale County physicians for discussion of 100 x-ray pictures made in a tuberculosis clinic held by Dr. D. L. Anderson, field clinician from the State Sanatorium.

During the first two months of this year 157,188 Mississippians were vaccinated for smallpox according to the records of Dr. A. L. Gray, director of Preventable Disease Control.

The alacrity with which Mississippians were vaccinated is reflected in the curtailment of the smallpox outbreak. No cases were reported during the last two weeks of March.

On March 31, Dr. George E. Riley, director of Malaria Control, spoke to the staff of the Houston Hospital on Mississippi's malaria control program. The staff of this hospital includes physicians from Chickasaw, Choctaw, Calhoun, and Pontotoc Counties.

On March 31, Dr. Felix J. Underwood and Dr. A. L. Gray met with the Jones County Health Department staff in a discussion of Dr. Gray's findings in a two-month's survey of communicable diseases there.

Dr. H. C. Ricks, director of County Health Work, addressed the University of Mississippi student body on venereal disease control March 31. The film on this same subject, "For All Our Sakes;" was shown as a supplement to the talk.

Dr. Stanley B. Weld, editor-in-chief, **Journal of The Connecticut State Medical Society**, recently requested our president of the State Medical Association, Dr. W. L. Little, to send an article for publication. His letter follows:

"W. L. Little, M.D.
Wesson, Mississippi
Dear Dr. Little:

We are publishing each month in our Journal an article by some one of the State Medical Society presidents. We invite you to send us for early publication an article of about 1000 to 1200 words on any subject you think may interest our members.

We hope this will interest you and that we may hear from you at an early date.

Sincerely yours,
(Signed) Stanley B. Weld, M.D."

Dr. Little responded with a splendid article for publication in the Journal.

Dr. R. N. Whitfield, director, of Vital Statistics, was a guest speaker at Kosciusko's "Safety Day" celebration, March 28. A mile-long parade composed of civic club members and more than 900 school children was a feature of the event, following which there was speaking in the town square.

An intensive ten-day campaign, including instruction in traffic safety and drills for school children, preceded the event.

Enacted into Mississippi Law during March was the Highway Patrol Bill, which should be a death preventative of high order in the state.

Visitors to the Board of Health during March included: Dr. Hamilton H. Anderson, American Medical Association, Chicago; Mrs. Marjorie B. Illig, American Society for Control of Cancer, Women's Field Army, New York; Miss Ruth Cushman, Regional Consultant in Public Health, Children's Bureau, New Orleans, Louisiana; Miss Mollie Hodges, American Red Cross, Meridian; Dr. W. K. Sharp, Jr., U. S. Public Health Service, Regional Consultant, New Orleans; Miss Mary Irene Atkinson, Federal Children's Bureau, Washington, D. C.

The Board of Health radio program over WJDX during March was as follows:

March 5—Dr. R. N. Whitfield, "Accident and Rabies Control."

March 12—Dr. Felix J. Underwood, "Fuel for the Body."

March 19—Dr. T. W. Kemmerer, "Diseases Common to Man and Animals."

March 26—Dr. T. M. Dye, "The Role of the Private Physician in Public Health."

Jackson, Felix J. Underwood,
April 5, 1938 Executive Officer.

SOCIETIES

ADAMS COUNTY MEDICAL SOCIETY

At the kind invitation of Dr. Homer Whittington, the Adams County Medical Society held its regular meeting at his home on North Union Street, March 22, at 7:30 p. m.

Dr. and Mrs. Whittington were hosts at a delicious supper served in their lovely home before the meeting was called to order. The dining table was covered with an exquisite lace cloth, and in the center of the table was a large bowl of beautiful pink roses. After supper all repaired to the living room where the meeting was called to order with a goodly number of physicians present.

Dr. Andrew Hedmeg brought up for discussion the establishment of a venereal clinic in Natchez and Adams County, and desired the members of the society to sponsor this clinic. After discussion by Drs. Benoist, Geisenberger, and Dixon, it was decided to procure more information, and to bring up the matter before the society at its next meeting in May.

Dr. Magee brought up for discussion a clinical case of bilateral stricture of the ureters in a female, with a case report.

Dr. Whittington discussed a case of aneurysm of the left iliac artery in a colored male, of traumatic origin.

Dr. Benoist discussed a case of aneurysm of the carotid on the left side.

Dr. Hedmeg spoke of pellagra in Adams County.

Dr. Magee asked of the possibility of sulfanilamide causing rashes on exposed surfaces.

These reports were followed by some discussion, after which the meeting adjourned until the next month.

Natchez, Lucien S. Gaudet,
April 4, 1938. County Editor

CENTRAL MEDICAL SOCIETY

The Central Medical Society met on the Robert E. Lee Hotel Roof, Tuesday, April 5, with dinner at 6:30 p. m. The program as announced by the secretary, Dr. Lawrence W. Long, was as follows:

Case Reports (10 minutes).

(1) An Unique Case.—Dr. D. W. Jones.

Discussed by Drs. J. W. Henthorne and L. W. Long.

(2) An Interesting Case Report.—Dr. F. L. Van Alstine.

General discussion.

(3) Diffuse Suppurative Encephalitis.—Dr. L. B. McCarty.

Discussed by Drs. N. E. Applewhite and M. L. Batson.

Papers (15 minutes)

Petrositis.—Dr. V. D. Hagaman.

Discussed by Drs. H. F. Garrison, Jr., and W. R. Bethea.

Dr. J. T. Rainer is president of the Society.

DELTA MEDICAL SOCIETY

The twenty-seventh semi-annual meeting of the Delta Medical Society was held at the courthouse, Rosedale, April 13. The program as announced by the secretary, Dr. F. M. Acree, Greenville, was as follows:

Business Session

Invocation—Rev. L. A. Street
Welcome Address—Mayor J. Wilson
Announcements
Order of Business

Scientific Session

Sunflower:—"Obstetrics in the Country," G. J. Mancill, M.D., Indianola.

Leflore:—"Allergy in Children," S. L. Brister, Jr., M.D., Greenwood.

Humphreys:—"Arterio-Venous Aneurysm." W. H. Brandon, M.D., Clarksdale. Guest from Clarksdale and Six Counties Medical Society.

Washington: — "Coronary Thrombosis: The General Practitioners' Problem." John Archer, M.D., Greenville.

Bolivar:—"Agranulocytosis." O. E. Ringold, M.D., Cleveland.

"The Treatment of Pneumococcic Pneumonia." J. H. Musser, M.D., New Orleans, La. Guest Essayist.

Social Session:

Buffet Supper followed by dance at Country Club.

April 5, 1938.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

A regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Mississippi State Charity Hospital, Vicksburg, Tuesday, April 12, with supper at 7 p. m. Dr. B. B. Martin, president, presided.

Program

The Streptococcal Diseases—Dr. John H. Dent, Vicksburg, Chairman.

1. Subacute Bacterial Endocarditis—Case Report.—Dr. T. E. Wilson, Jackson.
2. Factors Influencing Puerperal Morbidity With Special Reference to Streptococcus Infections.—Dr. R. A. Street, Jr., Vicksburg.

The Committee on Radio programs, Drs. F. M. Smith, B. B. Martin, Jr., and Alston Callahan, announced the speakers and their subjects for the second quarter of 1938 as follows:

Every Wednesday From 1:00 to 1:15 P. M.

April 6. Aims and Objectives of the Radio Program.—Dr. B. B. Martin, Jr., President.

April 13. Some Things People Should Know About Appendicitis.—Dr. J. A. K. Birchett, Jr.

April 20. Sulfanilamide, The New Drug, Its Great Worth, Its Great Danger.—Dr. Alston Callahan.

April 27. How The Heart May Be Injured. —Dr. L. J. Clark.

May 4. Our Responsibility to the Children. May Day Program.—Dr. R. H. DeJarnette.

May 11. The Human Stomach, Care and Abuse.—Dr. John Dent.

May 18. Do People Need the Family Doctor.—Dr. G. W. Gaines.

May 25. Necessary Care For Slight Wounds and Abrasions.—Dr. H. B. Goodman.

June 1. Seemingly Harmless, But Malignant or Cancerous Growths of the Skin.—Dr. J. L. Hall.

June 8. Frailties of Age.—Dr. P. S. Herring.

June 15. If Baby Could Understand and

Talk What Might It Ask of Mother In Its First Year of Life.—Dr. Guy C. Jarratt.

June 22. Care of the Eyes.—Dr. H. H. Johnston.

June 29. Poultices, Plasters, and Patients. —Dr. S. W. Johnston.

The next meeting of the Society, May 10, will be devoted to Malignant Diseases. The Committee in charge is composed of Drs. S. W. Johnston, Vicksburg, chairman; I. C. Knox, Vicksburg; and E. [illegible]. Stribling, Rolling Fork.

—COUNTY NEWS OF THE PROFESSION—

ADAMS COUNTY

Natchez, glamourous Natchez, was once again resplendent in the shining glory of its exotic past, as the Garden Pilgrimage and Garden Club once more ended their marvelous 1938 tours.

In the seven years of the Pilgrimage, this season witnessed the largest and most interesting number of visitors to our community, coming from all parts of the globe, and they were delighted and reveled in what they saw.

Natchez was never more beautiful with its green lawns and gorgeous roses, azalias and camellias, a sight never to be forgotten, and a treat for eager eyes.

Colors that varied and blended into indescribable beauty, as the setting sun spread its golden rays from the western skies. Large and massive are the ante-bellum homes, furniture of a period of long ago, beautiful silver plate-ware that held one in suspense, china from the old world.

Many were the exclamations of delight and wonder as people saw and saw, and they will return again and again, because it is so different. Who would miss the exquisite ball, with its riot of colors, beautiful girls, stately matrons, in which the tableaux unfolded scenes of long, long ago, and tell us of the grandeur and glory of that period of wealth and greatness?

Beautiful girls, with grace and beauty dancing the ballet before the King and Queen of the ball, was a surprise to those who did not know of the wonderful talent here in Natchez.

Old Memorial Hall with its long history was a befitting setting for all this, and there is nothing just like it in the whole world.

Many of the doctors and their wives took part in the tableaux on the different nights.

Natchez, Lucien S. Gaudet,
April 4, 1938. County Editor.

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY

The seventy-second semi-annual session of the Clarksdale and Six Counties Medical Society was held in the American Legion Hut, Clarksdale, Wednesday, March 23, with the president, Dr. J. D. House, Sledge, presiding.

Delegates to the Mississippi State Medical Association were elected as follows:

Coahoma County—N. C. Knight, delegate; A. G. Everette, alternate.

Quitman County—A. C. Covington,, delegate; J. P. Walker, alternate.

Tallahatchie County—Lacey Biles, delegate; J. G. Backstrom,, alternate.

Tunica County—M. B. Jernberg, delegate; W. L. Leake, alternate.

The afternoon session was devoted to a symposium on Tuberculosis as follows:

Early Diagnosis With Special Reference to X-Rays.—William D. Hickerson.

Discussed by Drs. Levy and Boswell. Closed by Dr. Hickerson.

Childhood Tuberculosis.—H. F. Garrison.

Epidemiology of Tuberculosis.—F. J. Underwood.

Clinical and Sanatorium Treatment.—Henry Boswell.

Treatment of Tuberculosis of the Cervical Glands.—J. D. Biles, Jr.

The last four papers were discussed by Drs. Holihan, Priddy and Cockerham. Dr. Boswell closed.

After a recess, the Society reconvened in the banquet hall of the Alcazar Hotel at 7 p. m. for banquet and entertainment. A paper, "Surgical Treatment of Tuberculosis," was presented by Drs. John S. Harter and Duane M. Carr. This paper was illustrated by lantern slides and was discussed by Drs. Lacey Biles, W. H. Brandon, J. D. Biles, Jr., Googe, Knight and Boswell. Drs. Harter and Carr closed.

Dr. Brandon made a talk regarding membership in the Mississippi State Hospital Association and asked the members of the Society to join.

Clarksdale, N. C. Knight,
March 29, 1938. Secretary.

DESOTO COUNTY

Before this is printed, the meeting of the State Association in Jackson will be history. We are anticipating a pleasant and profitable time; the trip, the program and the meeting of old friends is pleasing.

Recently we had the pleasure of meeting an old friend of long standing, of college and hospital fellowship, Dr. Aaron G. Everette, of Friars Point. Aaron first saw the light of this mundane sphere something over a half century ago at the hamlet of Wickware in this commonwealth. As the Westerners express it, he is a man that one would do well to tie to; dependable, loyal and capable, a friend like unto Damon or Jonathan of old.

Everette and myself have differed on most subjects, politics, religion, etc., but our friendship has grown all the while. May he and his good wife live long and happy and be a benediction to their many friends.

Dr. Emma Gay of Biloxi is State Commander of the Woman's Field Army for the Control of Cancer; she is anxious to get her program before the woman's organizations in the state and would like to get a unit organized in as many places as possible. Anything that will tend to enlighten the people about this loathsome and execrable malady is worth while.

We would like to see an increased enrollment in the Woman's Auxiliary, particularly in the Second Councilor District. The price in only one dollar per year.

Have you read Dr. McCartney of Fort Covington, New York,—"Forty Years a Country Doctor?" He tells the public what his profession is all about in his autobiography.

Records of 20,000 American Telephone and Telegraph Company employees show that four out of every five were benefited by periodical injections of common cold vaccines. Not that the number of colds was lessened to any great extent, but their duration and severity were clipped. My experience with cold vaccine is above.

Dr. J. W. Crawford is a retired physician, living at R. F. D., Coldwater, Tate County. Although 86 years old, he has just recovered from a severe attack of pneumonia.

Dr. Crawford graduated from Vanderbilt in the class of 1877. He was a physician of the old school, never refusing a call, no matter how uncertain the pay or the worthlessness of the patient; a good neighbor, active in civic and religious movements. Tho' inactive and aged, he keeps in touch with world venets and enjoys the friendship of his neighbors and friends while the shadows lengthen about him.

Declaring that health standards in those countries having state medicine have declined, Dr. A. F. Cooper, secretary of the Memphis and Shelby County Medical Society, in an address before the ladies' auxiliary of the organization at University Center yesterday, denounced inroads being made by state medicine in this country.

"Where state medicine has been tried out in European countries," Dr. Cooper asserted, "illness and mortality rates have increased. In America, where it was never tolerated until recently our health records have improved. That is a matter of statistics."

Obviously, Dr. Cooper said, this situation is due to the political nature of such an institution and the inevitable breakdown of doctor-patient relationship. In addition, state medicine discourages initiative in medical research he declared.

Nevertheless, Dr. Cooper believes that the Federal Government is fostering state medicine and that every effort must be made to halt its development if medical decline is not repeated in this country.

In a treatise on old age, written centuries ago by one whom we call a heathen but whose thoughts and words are immortal, Cato thus discourses to his friends Scipio and Laelius: "As I love to see the fire of youth somewhat tempered with the gravity of age, so I am equally pleased when I observe the phlegm of age somewhat enlivened with the vivacity of youth, and whoever unites these qualities in his character may indeed have the marks of years in his body, but will never discover the same in his mind."

Rout 4, Memphis, Tenn., L. L. Minor,
April 5, 1938. County Editor.

LEFLORE COUNTY

Dr. A. S. Hill, Holcomb, was a visitor to Greenwood, March 3.

At the regular staff meeting of the Greenwood Leflore Hospital, March 3, at 6:30 p. m., there were 17 doctors present. Dr. B. B. Harper, Itta Bena, was present also. After eating a nice dinner, the regular hospital report of cases was read, and the cases of deaths occurring during the month were discussed. Dr. S. L. Brister discussed a case of death from bronchopneumonia. Dr. J. A. Crawford discussed a case of death from shock due to automobile accident. Both femurs were fractured and there was internal injury.

Among the visiting doctors to Greenwood during the month were the following: Dr. E. R. Hudspeth, Doddsville; Dr. Meek, Glendora; Dr. J. D. Biles, Sumner; Dr. Russel A. Hennessey, Memphis; Drs. Gill and Kelly, Sidon.

Dr. J. C. Pegues is building a nice two story residence in North Greenwood.

Dr. and Mrs. D. T. Sayle, of Highlandale, Leflore County, visited in New Orleans March 9 to 15.

Dr. E. M. Murphy, Macon, visited his son, Mr. C. H. Murphy, at Itta Bena, March 15.

Dr. E. F. Roberts, medical director of the Lederle Laboratories of New York, delivered a film illustrated lecture at the Medical Building, this city, March 23 at 7 p. m. All the doctors and nurses of the county were invited.

Dr. and Mrs. R. B. Yates, Greenwood, attended the recital of their daughter, Miss Marjorie, at Sophie-Newcomb, New Orleans, March 31. From there they will go to Gulfport for a week or more, vacation, fishing, etc.

Greenwood, W. B. Dickins,
April 1, 1938. County Editor.

WASHINGTON COUNTY

The physicians of Washington County and the Beppo Arnold Post of the American Legion, acting through the local and State Park Commissions, have elicited the co-operation of the State Planning Commission in an effort to develop the warm springs of Percy Park near Hollandale as a health resort. The State Planning Commission, it is understood, is preparing a prospectus setting forth the practicability and advantages of such a development. This prospectus will be brought to the attention of the Warm Springs Foundation of President Roosevelt's sponsorship, with the hope they may be interested in furthering the development of this exceptional natural resource of Mississippi. Senator Bilbo, we are told, has expressed a profound interest in the project.

Dr. Wm. De Klein, National Director of Health Activities of the American Red Cross, was in Greenville this month especially to investigate the syphilis clinic in operation here. His interest arose from the fact that this is the first of such health activities in which the Red Cross has become directly interested through the giving of financial aid. He was entertained at the Greenville Hotel at a banquet the evening of March 24, given by Mrs. W. C. Spencer, local Red Cross executive. About fifteen doctors and several interested laymen were guests. Dr. De Klein expressed himself as gratified at the progress the syphilis clinic has shown and expressed his willingness to have the Red Cross continue its financial support for a time or until some local agency could take over the support.

Miss Ethel Davis Atria has been added to the staff of the local Red Cross as a teaching nurse. She will serve at least three months. Her duties will be to hold classes for both white and colored for the teaching of home hygeine and care of the sick.

Dr. J. G. Archer left on April 1 to attend the meeting of the American College of Physicians held this year in New York.

Dr. P. G. Gamble spent a few days in Florida, returning with his family who have spent several weeks in Palm Beach.

Greenville, J. A. Beals,
April 4, 1938. County Editor.

WINSTON COUNTY

Dr. W. A. Young, Louisville, while driving out from Jackson four miles was held up by two white men and one negro March 31. They overlooked his purse, getting only a small amount of silver and his car. He walked into Jackson and the officers procuring his motor number and tag number started a search for the bandits. They failed to fin dthem but the car was found abandoned near Clinton. The car was not apparently injured.

Dr. Everett Lovorn, Fearn Springs, was in town visiting his daughter-in-law, Mrs. Emett Lovorn who is ill.

Dr. W. B. Hickman spent several days in Meridian last week-end.

Dr. L. T. Parks, Fearn Springs, and son visited the city the 4th inst.

Dr. C. A. Kirk was in consultation with the writer in case of Mrs. Jasper Clark of the city recently. She is an old pioneer citizen of this county so highly appreciated by all her friends who are saddened by her severe illness.

Louisville, M. L. Montgomery,
April 5, 1938. County Editor.

INTERPRETING MEDICAL LITERATURE

PATHOLOGY AND CLINICAL PATHOLOGY

E. T. White, Greenville

The Determination of Sulfanilamide in Urine and Blood, Doble, John, and Geiger, J. C., San Francisco, Cal., Jour. of Lab. and Clin. Med., 23, 651.—Several reagents were tried, but diphenylamine was the one adopted as the standard reagent. It gives a good color graduation from colorless in blank to a golden yellow of increasing intensity with increasing concentration of sulfanilamide. A difference of 0.1 mg. sulfanilamide per 100 cc. of solution could be readily differentiated. Sulfanilamide is excreted in a conjugated form (about 40%) so to get the total sulfanilamide excreted, hydrolize in boiling water for 40 minutes equal volumes of urine and normal hydrochloric acid.

Reagents: 0.1 normal hydrochloric acid
0.1 per cent aqueous sol. of sodium nitrite
0.5 per cent diphenylamine in 95% alcohol
Standard sulfanilamide solution (200 mg. per liter of distilled water)
95 per cent alcohol.

Urine: Dilute about 1:50. To 10 cc. dilute urine add 2 cc. 0.1 N HCl, 1 cc. sodium nitrite, and 5 cc. alcohol, shaking after each addition. After 3 to 5 minutes add 1 cc. diphenylamine solution. Standards are prepared by adding 1 cc. sulfanilamide sol. to 9 cc. alcohol and treating this solution in the same way as the blood filtrate. Match in colormeter in 15 minutes.

To hydrolize blood take 10 cc. filtrate and 5 cc. 0.1 N HCl and heat in reflux condenser for 30 minutes. Cool and treat as above, omitting the addition of water and the hydrochloric acid.

This reagent gives no color with other commonly used drugs as acetanilid and acetphenetidin.

Changes in the Liver in Amebic Dysentery,

Palmer, Rex B., Chicago, Arch. of Path., 25, 327.—Nineteen cases of amebic abscess of liver from autopsies from Cook County Hospital are reported. There were 16 white men, 2 colored men, and 1 white woman. Only 6 cases were diagnosed clinically as amebic dysentery.

The author concluded that the amoebae reach the liver through the portal vein. In one case amoebae were found in a portal vein thrombus. The branch of the portal vein in which the amoebae lodge will become thrombosed, producing a wedge-shoped infarct. The amoebae spreads through the connective tissue of the triads into the parenchyma of the liver. Here they produce lysis with little accompanying inflammatory reaction and the abscesses increase in size by coalescing with neighboring abscesses. The central area of liquefaction is bordered by a thin meshwork of fibrous strands in which are a moderate number of lymphocytes and large mononuclear cells. Poly morphonuclear cells are rarely found. There is an increase in portal connective tissue which plays an important part in walling off the abscesses. It is often present in patches of focal distribution which may be scar tissue of healed small liver abscesses.

In cases in which there are active amoebic lesions in the colon there is definite hepatitis. There is a generalized increase in portal connective tissue, a lymphocytic and mononuclear cell infiltration and the presence of degenerative changes of variable type—a parenchymatous degeneration, fatty changes, hemosiderosis and lysis of hepatic cells.

Diurnal Cycle of Liver Function, Seckel, H. P. G., and Kato, Katsuji, Chicago, Arch. of Path., 25, 347.—Hepatic glycogen and bile acids show a marked quantitative variation during the 24 hours period. When one is high, the other is low. Glycogen storage reaches its peak in the morning between 2 a. m. and 4 a. m. and is lowest in the afternoon around 4 p. m. and 5 p. m. The bile acids are highest in the afternoon between 4 p. m. and 5 p. m. and lowest in the morning between 2 a. m. and 4 a. m. This condition is not present at birth and in rats develops about the tenth to the fourteenth day. In the human it develops between 2½ months to 6 months of age. This variation in storage is due to the fact that epinephrin output and sympathetic tonus are high during the day but low at night, and the posterior pituitary secretion and parasymphathetic tonus are low during the day but high at night.

Greenville, April 4, 1938.

PEDIATRICS

Harvey F. Garrison, Jackson

The Treatment of Epilepsy in Children.—Keith, M. M., Canad. Med. Asso. Jour. 37 (November) 1937, 485-498.—It has been found that a ketogenic diet, producing large amounts of diacetic acid in the urine, is a satisfactory method of treating cases of epilepsy, particularly in children.

One hundred and sixty patients were treated satisfactorily over a period of from one to nine years. Of these, 36 rper cent remained entirely free from any attacks of any type so far as is known to themselves or to their parents; 21% were improved, having only an occasional attack; 43% were not benefited, although they carried out instructions fully. One may say then, that with the ketogenic diet alone, one-third of the epileptic children can be made free from seizures and 50 to 60% can be improved. This percentage of so-called cures could undoubtedly be increased by a more refined method of diagnosis.

A ketogenic diet, to be effective, must be rigidly controlled and should be a weighed diet. It is necessary that in the diet the ratio of the ketogenic material to the antiketogenic be at least 3:1. This ration is calculated according to Woodyatt's formula in the following manner:

Ketogenic—90% of fat; 4% of protein
Antiketogenic—All of carbohydrate
58% of protein
10% of fat

$$\frac{\text{Ketogenic}}{\text{Antiketogenic}} \text{ or } \frac{\text{Fatty Acid}}{\text{Glucose}}$$

ratio is

$$\frac{.90F \text{ plus } .46P}{C \text{ plus } .1F \text{ plus } .58P}$$

Then calculate the diet for the individual patient as follows: for children the number of calories is 55 per kilogram, or 25 per pound of body weight which has been found quite satisfactory. The carbohydrate and the fat are then adjusted so that the ratio is as indicated and the calories are satisfactory for nutrition and growth. The caloric requirements are based upon the estimated weight for height, as given in standard tables. Over a period of four days the carbohydrate in the diet is decreased rapidly and the fat increased as in the following example:

Boy: 8 years, 55 pounds (25K)
Calories 1375
(25 calories per lb. body weight)
(55 calories per Kg. body weight)

	C. g.	P. g.	F. g.	Cals.	K AK
1 day	50	25	119	1371	1.5
2 day	35	25	126	1374	2.0
3 day	20	25	133	1377	2.7
4 day	15	25	135	1375	3.1

This is advisable because most children

placed immediately on the final diet will become nauseated and sometimes will have severe vomiting. However, with the plan indicated this very seldom occurs. In order to make certain that the patient is in ketosis, a urine test for diacetic acid is done on the first morning specimen daily. This, the patient's mother can be taught to do quite readily. Patients must be kept on this diet, in ketosis, for a period from 6 to 12 months. The carbohydrate in the diet is then gradually increased and the amount of fat reduced until the diet is essentially normal again; this usually takes place over a period of three to six months. The diet for an adult is the same in principle, although the caloric demand and the amount of protein necessary are different.

Comment: Practically all of us, who have had any experience with a ketogenic diet are quite familiar with its value, and are heartily in accord with the suggestions made by the essayists in this paper. This in no sense rules out of the value of the use of sedatives in epilepsy. The use of such drugs as phenobarbital and bromides or their combination is well-known to all of us and one or both should be prescribed in practically every case until the patient is well under control. It goes without saying that any patient with epilepsy should have a most thorough examination, and if there is any indication for neuro surgery, whatever, this as a matter should be done.

Jackson, April 4, 1938.

PUBLIC HEALTH

Felix J. Underwood, Jackson

The Phosphatase Test for Pasteurization.—Tiedman, W. Von Dohlen, New York, American Journal of Public Health, 28:3 (March) 1938.—Health officials have long dreamed of the development and use of a practical test for pasteurization. A practical means of determining whether or not milk and cream have been properly pasteurized is now available in the so-called phosphatase test. The test is based upon the action of the enzyme phosphatase, which is present in raw milk and is almost completely devitalized by pasteurization, on a buffer substrate containing disodium phenol phosphate. The amount of phosphatase present is read by comparing the intensity of the blue color in test tubes with permanent standards. The test will indicate samples of milk or cream that have not been properly pasteurized, or pasteurized milk to which as little as 0.1 of 1 per cent of raw milk has been added.

The application of the phosphatase test will not do away with the necessity for pasteurization plant inspection. Effective inspection work to be assured of proper plant operation at all times. The phosphatase test should be looked upon as an additional weapon in the hands of the health officer in his work of milk sanitation enforcement.

This test is now done routinely by Mississippi State Hygienic Laboratory on all samples of supposedly properly pasteurized milk sent to this laboratory for bacteriological and other tests.

Jackson, April 5, 1938.

EYE, EAR, NOSE AND THROAT

Alston Callahan, Vicksburg

Experimental Studies of Ocular Tuberculosis.—Wood, Alan C., Burkey, Earl L., and Friedenwald, Jonas S., Arch. of Ophth. (Feb.) 1938.—Several of the previous findings and opinions are stated:

1. Ocular tuberculosis is in the main dependent on hematogenous infection arising from tubercular lesions elsewhere in the body, and is only infrequently associated with active pulmonary lesions.

2. The inflammatory caseating and necrotizing phases of ocular tuberculosis are due to allergy, while the encapsulation and healing of the lesion are due to immunity.

3. Allergy and immunity are apparently quite unrelated, being two distinct entities.

4. The nature of tuberculous allergy is fairly well understood, being a sensitization of the tissues by tuberculo-protein diffusing out from a tuberculous lesion; the nature of immunity is not clearly understood, but certainly there are two factors—a humoral and a cellular factor.

The aim in the treatment of ocular tuberculosis with tuberculin on the basis of the desensitization concept is to abolish ocular sensitivity; and the degree of cutaneous sensitivity present has been accepted as an index of ocular sensitivity. But much indirect evidence has been accumulated to show that this is not always true; some patients have had ocular lesions, later demonstrated microscopically to be tuberculous, and have had no abnormal cutaneous sensitivity. In their first experimental study, it was found that the cutaneous sensitivity gives a fairly reliable index of the degree of ocular sensitivity in the systemically infected rabbit with undiseased eyes; but later in studying tuberculous eyes, it was found that cutaneous sensitivity gives no idea of the degree of ocular sensitivity present.

Comment: Studies in ocular tuberculosis may seem remote to Mississippi physicians, yet in our own experience, this has been found quite frequently. Unfortunately, it often proceeds unrecognized, and is treated as conjunctivitis or iritis. The purpose of this work is to determine whether treatment of ocular tuberculosis with tuberculin possesses a scientific foundation, and if it is of real value.

Although experimental evidence is often viewed askance by confirmed clinicians, the work on ocular tuberculosis by Woods and Friendenwald is outstanding in American opthalmology, and further reports by them are welcomed.

It is interesting to note that in the technique of these investigators "purified protein derivative" of the tubercle bacillus was used throughout, and it is believed that this product will succeed in supplanting the familiar "old tuberculin."

Improvements in Local Anesthesia for Surgery of the Maxillary Sinus.—The large majority of otolaryngologists prefer to do their work under local anesthesia and it is only natural that inprovements in technique should be attained. Two surgeons have recently reported improved methods of anesthetizing the maxillary sinus for surgical procedures.

Arthur M. Alden, of St. Louis, in a paper presented before the Southern Medical Association at New Orleans, Louisiana, November 30, 1937, described the injection of the maxillary division of the trigeminal nerve. He used an Alexander needle with the stop set a [illegible] cm., going just above the notch of the maxilla and just below the arch of the zyoma. The needle is directed medially, very slightly upward and slightly anteriorly. When the nerve is engaged,, 2 to 4 cc. of 1% novocain will give satisfactory anesthesia. The writer has followed this technique with satisfactory results.

In the February, 1938, Archives of Otolaryngology, rederick T. Hill, of Waterville, Maine, has described another technique. Using an ordinary 22-gauge hypodermic needle he injects the infraorbital foramen, superficially at first and then, inserting the needle into the infraorbital canal, injects deeply. He uses 2 to 2½ cc. of 2% novocain. The object is to infiltrate the solution as far back as possible along the course of the maxillary nerve. Injection of methylene blue into a cadaver by this method showed that the dye infiltrated not only the maxillary division of the trigeminal nerve but the sphenopalatine ganglion and its palatine branches as well as into the gasserian ganglion. The writer has not used this technique but intends to try it in the future.

It is, of course, understood that neither method anesthetizes the nasal cavity and it is necessary to supplement either method with a pledget of cotton moistened with 10% cocain and inserted into the inferior meatus.

Vicksburfi, April 5, 1938.

SURGERY

A Street, Vicksburg

The Surgery of Carcinoma of the Stomach, South. Surg. 7:172 (April) 1938. Dr. F. E. Kredel calls attention to the curability of cancer of the stomach in its early stages. Balfour reported 48% five-year cures of cases in which regional lymph node metastases were absent and the growth confined to the stomach wall. On account of the paucity of symptoms during the early stages of gastric carcinoma, the diagnosis is not often made in the early stage. When involvement of the regional lymph nodes has occurred, the chance of cures by resection is markedly diminished, 18% in the Mayo Clinic series. Early diagnosis might be accomplished more frequently if both patient and doctor were more impressed by vague gastric complaints in persons of cancer age. Roentgenology is the most important diagnostic aid. The gastroscope is coming into wider use. Radiation therapy has so far been of little value in gastric carcinoma. Early resection appears to be the only treatment at present.

Comment: The receiver does not feel that all cancerous growths occurring in the stomach run a similar course, but that the behaviour of such growths in the stomach vary as it is known to do in other locations. For instance, we see slow growing carcinoma in the breast free of metastasis, although there is history of tumor for one or more years. On the other hand, we see highly anaplastic rapidly growing carcinoma of the breast presenting metastasis at the time the primary tumor was first noticed. Situation in the stomach is probably comparable. Slow growing cancer at the pylorus may give rise to symptoms over a long period and then eventually obstruct sufficiently to force the patient to seek medical aid and, in such cases, metastases are frequently absent. On the other hand, the fulminating type of carcinoma of the stomach undoubtedly exists. When dealing with the slow growing cancer, we have a reasonably favorable prognosis, with moderately early diagnosis and treatment. In the rapidly growing, quickly metastasizing type, we probably have very little hope of making a diagnosis enough to effect a high per cent of cures.

Removal of Large Dermoid Cysts from the Anterior Mediastinum, J. Thoracic Surg. 7:338 ,Feb.) 1938.—Drs. Ernest V. Smith and Ralph G.Mills review some of the history of mediastinal cysts, some true dermoid, and some teratomata. The teratomata are more often solid tumors or polycystic; they frequently undergo malignant changes and usually contain tissues from all germinal layers. The true dermoid cyst is derived from ectodermal tissue entirely, is usually monocystic, and seldom becomes malignant.

The origin of mediastinal dermoid cysts is probably from ectodermal inclusion, originally from the fourth, or lower, branchial groove.

The age of patients in whom such cysts have been recognized has most often been from ten to thirty years.

Of two hundred cases reported in the literature, about eighty have been operated upon, sixty of which have had multiple operations. Incomplete operations, such as drainage or partial resection, can be expected to lead to infection, with persistent sinus and unsatisfactory results.

Surgical approach depends upon the location and size of the tumor. A cervico-sternal dermoid if small, may be reached through a transverse cervical incision, as for removal of a substernal goitre. Harrington prefers the posterior approach, particularly if the tumor projects into the pleural cavity or is adherent to the lung. If the tumor is confined to the anterior or superior mediastinum, he prefers the anterior approach, either by splitting the sternum or resecting cartilages, and then turning back a flap of the thoracic wall. The authors believe approach should be most often from the front, using every precaution to avoid opening the pleura. Soft rubber drains are recommended to prevent accumulation of serum in the space left by removal of the cyst.

The case reported was a woman, age twenty-seven, who had complained of pain in the left chest and shortness of breath since childhood, and had been more or less disabled all her life. She had been told that her symptoms were the result of heart disease. By flouroscopy the authors observed the globular non-pulsating pedunculated mass extending downward and to the left from the upper mediastinum.

From the patient's history of symptoms suggesting a tumor since childhood, most likely of congenital origin, along with the roentgenographic studies, the diagnosis of large dermoid cyst was made.

Operation was done after nine months of observation and study. A flap of skin, breast and soft tissues down to the muscle was turned back with the pedicle lateral, the flap exposing the second, third, fourth, and fifth costal cartilages and anterior rib ends. The lower attachment of the pectoralis major to the chest wall was then divided and the pectoralis major reflected laterally. The second, third, fourth, and fifth costal cartilages were then divided close to the sternum and the ribs divided laterally at the base of the pedicle of the flap. Intercostal tissues between the first and second and fifth and sixth ribs were then divided, and the flap turned back laterally, carefully dissecting the pleura from it and avoiding pleural injury. The cyst was emptied of 1700 cc. of water sebaceous fluid and was mobilized, the pedicle ligated and the tumor removed. Recovery was uneventful.

Comment: The cure of a patient presenting a large mediastinal tumor is a commendable achievement. The outlook for patients with mediastinal tumor is so often poor that we are prone to look on the prognosis as generally gloomy. The case reported by Drs. Smith and Mills should serve to remind us to be thorough in our investigation before deciding that a case of mediastinal tumor is incurable. Other conditions to be differentiated from dermoid cyst are malignant growths, both primary and secondary, syphilitic masses, aneurysm, and other benign tumors than sebaceous cysts.

Report of the Committee of the American Association for Thoracic Surgery to Study the Problem of Training of Thoracic Surgeons, With Particular Reference to Their Certification by a National Board, J. Thoracic Surg. 7:347 (Feb.) 1938. The committee was appointed at the 1936 meeting of the association. At the two meetings held, considerable information was presented. Up to the year 1936, the membership of the American Association for Thoracic Surgery included ninety-seven, or 61%, general surgeons, with special interest in thoracic surgery, while eighteen, or 11.3%, classified themselves as specialists in thoracic surgery who restrict their work to that specialty; 35.1% of the general surgeons stated that they themselves had had some special training in thoracic surgery, but 93.9% of this same group felt that it is advantageous or necessary to have special training; 60.8% felt that the necessary proficiency in thoracic surgery may be acquired as a part of the training for general surgery, provided a sufficient number of chest cases are available on the general surgical service. Of the eighteen surgeons who specialize exclusively in thoracic surgery, 83% had special training, and all of them, or 100%, believe that such special training is essential.

From questionnaires sent out, it was determined that there are probably not more than twenty-four residences in thoracic surgery available in this country and Canada.

The majority of the members who are general surgeons with a special interest in thoracic surgery are opposed to having a resident in thoracic surgery. They do not favor depriving young general surgeons in training of the advantages which experience with thoracic cases gives them. The attitude is stressed that the training of a general surgeon must include all types of surgery.

It was concluded that special training for thoracic surgeons can best be carried out in institutions concentrating large groups of chest cases, such as university clinics, special departments of general hospitals, or tuberculosis hospitals. After carefully considering the question of establishing a special certifying board for thoracic surgery, the committee put itself on record as opposed to the further splitting up of general surgery into subdivisions. The committee recognizes and advocates the following important points:

"1. That all future thoracic surgeons must be well-trained general surgeons, as determined by the American Board of Surgery.

"2. That general surgeons will of necessity continue to do thoracic surgery as far as they are able to and their inclinations permit.

"3. That for those men who desire to prepare themselves as thoracic surgeons, special opportunity for training be provided.

"4. Such training may be of a longer or shorter period, depending on the needs and the desire of the surgeon.

"5. One may visualize a short period of training in a thoracic clinic or a tuberculosis hospital to supplement the training of any young general surgeon. With the great demand for men qualified to do thoracic surgery, in addition to their other work, such residences may become very popular.

"6. One may also visualize a long period of training of two or more years, to include all technical procedures used in diagnosis and treatment of thoracic disease, perhaps supplemented by courses in the basic sciences. Such residences or fellowships would qualify men to become specialists or to teach thoracic surgery."

The following resolutions were adopted by the committee:

"1. Me it resolved that the American Association for Thoracic Surgery recognizes the American Board of Surgery as the parent organization which should properly be in control of all matters pertaining to the training and certification of the surgeons and surgical specialists.

"2. Be it further resolved that the American Association for Thoracic Surgery signifies to the American Board of Surgery its willingness to co-operate with it, if and when the special certification of thoracic surgeons seems desirable.

"3. Be it further resolved that, in case a subcommittee be desired by the American Board of Surgery, it be appointed by the Council of the American Association of Thoracic Surgery and that it be composed of surgical members of the association.

"4. The functions of the subcommittee should be determined by the American Board of Surgery."

Vicksburg, April 8, 1938.

RADIOLOGY

J. A. Beals, Greenville

Bronchomycosis; An Agricultural Risk, Am. J. Roent. (Jan.) 1938.—At the International Congress of Radiology, held in Chicago, September, 1937, Dr. R. Fawcitt, of the North of England, discussed the occurrence of mycotic infections of the lung as an occupational disease of persons engaged in agriculture. His experience and opinions are especially worthy of note in a state so predominantly agricultural as Mississippi.

Fawcitt has encountered the disease among those who handled mouldy hay, grain, soil or decaying vegetable matter. The symptoms are dominantly a distressing dyspnea, lasting for months. There is a cough, frothy sputum, slight fever and accelerated pulse. Some cases become chronic and progress to a fatal termination. The clinical signs are those of a fine mronchial catarrh or asthma. Patches of dullness, increased vocal resonance, crepitant and coarse rales may be found. The cases usually receive a clinical diagnosis of tuberculosis. However, the sputum is consistently negative for tubercle bacilli and usually shows a fungus.

Fawcitt discusses the roentgen appearance of the lungs in the early, intermediate and late stages. In earlier stages there is accentuation of bronchial markings as in bronchitis. In later stages fibrosis appears and the roentgenogram is not unlike that of pneumoconiosis seen in mine workers and stone cutters.

The author makes a plea for early recognition when large doses of iodides and creosote may arrest or cure the disease.

Radiation Treatment of Benign Prostatic Hypertrophy, Am. J. Roent. (Jan.) 1938.—One is always pleased and impressed by encountering an unbiased discussion of any subject by an authority of great experience.

Dr. Curtis F. Burnham, of Baltimore, rightly emphasizes the great advances and satisfactory results of modern surgery in the treatment of benign hypertrophy of the prostate. Yet there are inevitably cases of this condition which refuse operation, or, because of age or serious illness from other causes, cannot be operated upon. Such cases Burnham has treated by radium, applied externally and at a distance, with generally good effect. (High voltage x-ray should be equally effective.)

Sixty-eight such cases have been treated by the author. In thirty there was marked relief from dysuria, retention and hemorrhage, and a reduction in the size of the prostate was observed. Most of these were advanced cases. Six early cases were improved when they disappeared from observation. Twenty-two were not improved clinically, although some of these had marked reduction of size. Three cases, completely relieved, had a return of symptoms after five years. Relief was shown one week to one month after treatment.

Life Expectancy and Incidence of Malignant Disease.—A series of articles bearing this title has been appearing in the American Journal of Cancer. These are by I. I. Nathanson and C. E. Welch, of the Harvard Cancer Commission and constitute a statistical investigation based upon the records of cancer patients in the Huntington Memorial and Pondville State Hospitas, from 1912 to 1935. It is claimed that about one-fifth of all cancer cases in Massachusetts are now seen in these two hospitals. (Presumably this is due to encouragement by the state of these clinics for the treatment of cancer.)

These authors have eliminated all records in which the diagnosis or the date of onset was in doubt. They have considered the duration of life after the onset of symptoms regardless of whether the patient died of cancer or some other cause. They consider in separate groups the treated and the untreated cases but make no distinction as to the kind of treatment, which was often intended only as palliative, or would be considered inadequate according to present day views.

They believe their findings for the duration of life after onset, for cancer of various organs, should be a fair approximation of the life expectancy of all cancer cases, at least in Massachusetts. Similar approximations have been made by public health departments and insurance companies but from these sources the errors of diagnosis are much greater and the date of onset of the disease is usually not known.

Obviously a detailed review of this lengthy series of articles would not be of great interest or value to the readers of **The Mississippi Doctor**. However, some conclusions seem worthy of transmission.

Breast Cancer, Am. J. of Cancer (Sept.) 1936.—There were 100 cases receiving no treatment. One-half of these were dead at the end of 2.5 years, but one-fourth lived for 4 years, and one patient lived nearly 15 years.

There were 1550 cases receiving various treatment, often palliative. One-half of these lived a year longer, 3.5 years, and one-fourth lived for 6.5 **years**, while 10 per cent were living at the end of ten years.

Cancer of the Tongue: There were 46 untreated cases, of which 62 per cent died within one year and 86 per cent in 2 years. Treatment of 798 cases was only moderately effective in prolonging life, for 30 per cent died within the first year and 70 per cent died in 2 years; however [illegible] per cent were alive at the end of 5 years.

Cancer of the cheek was more favorable than cancer of the tongue while cancer of the floor of the mouth, palate and alveolus was only slightly better.

Larynx: The author's findings are somewhat surprising. There were 23 cases of laryngeal carcinoma that received no treatment, of which number one-half died within one year and 95 per cent within two years. There were also 25 cases treated only by tracheotomy. This prolonged life to 1½ years for one-half of these patients and 95 per cent were not dead until 5 years. There were 284 cases receiving laryngectomy, but the survival rate for the first two years was no better than for those receiving tracheotomy, and only moderately better thereafter.

Carcinoma of the Gastro-Intestinal Tract, Amer. J. Cancer (Nov.) 1937.—Esophagus: The authors found carcinoma of the esophagus to be the most fatal type studied by them. There were 50 untreated cases and 75 per cent were dead within 12 months of the onset of symptoms. Gastrostomy alone prolonged life only to the degree that 75 per cent were dead 1½ years after onset. Treatment by irradiation, with or without dilation, as in 138 cases, did not prolong life.

Stomach: There were 159 untreated cases of gastric cancer, of which number 50 per cent died in 13 months and 75 per cent died in 17 months. Various palliative operations were of slight benefit in 156 cases, for 50 per cent died in 15 months and 75 per cent were dead within 2½ years. A small group of 25 cases receiving gastric resection showed 25 per cent living for four years.

Rectum: There were 77 untreated cases of carcinoma of the rectum of which number 50 per cent died in about one year and 75 per cent were dead in about two years. There were 510 cases treated by resection, colostomy, x-ray, or some combination of these. Life was prolonged one year for 50 per cent of these, and 25 per cent lived for 40 months. However, the improvement was due entirely to resection, as neither colostomy nor radiation prolonged life.

Genito-Urinary Tract, Amer. J. Cancer (Dec.) 1937.—Cervix Uteri: The authors' 67 untreated cases followed closely the course of a large series reported by the British Ministry of Health. One-half were dead in fourteen months and three-fourths in twenty-one months.

Treatment of 2192 cases was mainly by radium and x-ray. This treatment prolonged life so that one-half were not dead until 27 months, and three-fourths not dead until 4 years. At the end of 5 years 17.5 per cent were living. This is not as favorable as other large series of similarly treated cases, probably because of less favorable material, for five-year cure rates are quoted as high as 26.5 per cent.

Fundus Uteri: Adenocarcinoma of the body was considerably more favorable than cancer of the cervix.

Ovary: The same was true of 159 cases

of carcinoma of the ovary.

Prostate: There were 39 untreated cases of carcinoma of the prostate, of which one-half were dead in 12 months and three-fourths were dead in 21 months. Treatment of 165 cases nearly doubled the time, for one-half were dead in 26 months and three-fourths in 41 months.

Bladder: Life expectancy was a few months longer than in cancer of the prostate, both in untreated and treated groups.

Malignant Lymphoma: There were 310 cases of malignant tumor of lymphatic origin exclusive of Hodgkin's disease. One-half lived for 2 years and one-fourth for nearly 5 years. The prognosis was a little better for 184 cases of Hodgkin's.

Leukemia: The life expectancy and myelogenous leukemia, when acute and chronic cases were combined, was not much better than for the malignant lymphoma group.

The authors discuss the reports of others which indicate that irradiation prolongs the useful life in both the lymphatic and chronic leukemic groups.

These serve best as a basis of reference for those wishing to compare their own results, particularly against the expectancy of life in untreated cancer of several important sites. They do not imply a highly pessimistic view of treatment when one considers that the hospitals from which the material is drawn are devoted to the care of cancer, often in its most hopeless state, and that treatment has often been of necessity not intended to cure but to relieve suffering.

ORTHOPEDICS

Thomas H. Blake, Jackson

Sciatica and Low Back Pain, Fincher, Edgar F. and Walker, Exum B., Atlanta, Ga., So. Surg. (April) 1938.—These authors report a study of 31 consecutive cases of low back pain with radiating discomfort down one or both lower extremities. Associated was a rather circumscribed distribution of the discomfort showing direct association with certain spinal nerves. There was frequently an alteration in sensation on the lateral surface of the leg or dorsum of the foot. Some of these cases were totally disabled because of discomfort. Specially prepared lipiodol was injected into the spinal canal and observed under the fluoroscope as it gravitated downward within the spine. In 24 of the 31 cases a very definite deformity in the lipiodol shadow was visible showing herniation of the intervertebral disc into the spinal canal. This pressure caused the pain which radiated down the nerve roots. It has been definitely shown that a proper preparation of lipiodol injected into the spine is harmless and as time passes is not incapsulated. Operation gave complete relief to twenty-four patients. The procedure consists of removing through a laminectomy incision the protruding portion of the disc that was displaced into the spinal canal. In a number of cases the sensory nerve root which was compressed was sectioned. This, apparently, had no effect on the normal sensation of the lower extremities. However, it apparently helped definitely in relieving pain.

The opinion of the abstractor is that in selected cases, this is an excellent procedure, but it must be remembered that many new procedures are overworked and this operation cannot be used to an excess, and it should only be done by men specially trained in this field.

Arthroplasty of the Hip, Fuiks, D. M. Davenport, Iowa, Arch. Surg. (Mar.) 1938.—The author reports 57 patients on whom 60 arthroplasties of the hip were done. This operation is an attempt to restore motion in a joint which has ankylosed or has painful motion. Good results were obtained in 35 per cent, that is, they have no pain and as much as 40 degrees of motion. Thirty-five per cent obtained fair results and the rest were failures. Infection developed in ten cases or nearly 17 per cent. This rate of infection is high. The choice of cases was from hypertrophic arthritis, atrophic arthritis, suppurative arthritis, gonorrheal arthritis, slipped upper femoral epiphysis, congenital dislocation, osteomyelitis and aseptic necrosis. One layer of fascia was placed over the head of the femur.

The abstractor thinks poor cases were selected for operation. Atrophic arthritis, slipped epiphysis and congenital dislocations give very poor results for this operation.

Experiences With Metaphyseal Growth Arrests, White, Warren and Warner, W. P., Greenville, S. C., So. Med. J. (April) 1938.—These authors report the results in more than 50 cases in which one leg was longer than the opposite. Most of these cases were due to an undergrowth of one extremity following infantile paralysis or a shortening following a fracture. It is their opinion that it is much simpler to shorten the uninvolved extremity or to minimize the rate of growth than it is to attempt a very elaborate leg lengthening operation on the shortened extremity. Their method of approach is to remove a square peg on either side of the epiphysis to be operated. This is done through the cartilagenous line. The peg is then replaced in the hole after it had been rotated ninety degrees. This causes a fusion of the epiphysis at this point preventing further growth. The operation, of course, should not be attempted by just any surgeon, but in selected cases, it is very practical. Approximately one-quarter to threeeights year after this operation is done. If more than one epiphysis is operated this same amount of alteration in growth can be expected for each operation.

This apparently is an excellent procedure and should be more generally employed by orthopedists throughout the country. So far, no ill results or deformities have been experienced by the authors of the article. This will greatly minimize the imbalance following poliomyelitis or other growth altering disorders in children. It will greatly improve their appearance, stability and gait in the future.

Tenosynovites of the Long Head of the Biceps Humeri, Schrager, V. L., Chicago, Ill., Surg., Gynec., & Dbstet. (April) 1938.—The author describes a soreness of the long head of the biceps as being a new medical entity first described by F. Pasteur. The soreness resembles very closely along the deltoid groove and the motions of extreme abduction, external rotation and the ability to place the hand behind the back show marked limitation. The treatment according to this writer is heat, diathermy and electric stimulation.

The close similarity of this disorder to that of the other acute, subacute and chronic shoulder pains is very close and the treatment is practically the same. The experience of the abstractor in a number of these cases is that absolute rest with the arm at right angle abduction and in external rotation with artificial heat applied has usually been satisfactory. Some of these cases are chronic, however, and in such instances, it is frequently necessary to anaesthetize the patient and manipulate the shoulder to break up adhesions which have been formed. The arm should then be held in abduction and external rotation until the acute soreness subsides. In the meanwhile baking and massage are given. All of these cases, especially in the early stages, should be placed in abduction as gravity will always bring the arm down to the side and stretch or break adhesions, where as, if adhesions occur with the shoulder in abduction, it is extremely difficult to abduct it.

Treatment of Compound Fractures, Darroch, William, New York, Surg., Gynec. & Obstet., (April) 1938.—This is a short editorial making plea for the early proper treatment of these fractures. Special emphasis is made on debridement within two hours, and at the outside, not later than four hours if infection is to be controlled. Reduction, if possible, should be accomplished at the time of the debridement as waiting for reduction will encourage infection and be much more difficult in the presence of swelling and the formation of new granulation tissue, frequently, making reduction entirely impossible, if infection should take place. Immobilization should be as thorough as possible as incomplete fixation encourages infection and in many instances is the cause of non-union. The author advocates freer use of internal fixation of various types, such as screws, plates, etc., but he advocates their removal as soon as possible.

Physiological Rest in the Early After Care of Poliomyelitis, Irvin, C. E. Warm Springs, Ga., So. Surg. (April) 1938. The author here makes a plea for the treatment of early cases of poliomyelitis by placing the patient at absolute rest. This is the one point of greatest importance in the early care of acute poliomyelitis. The less a patient can be moved or handled, the better the outcome then can be expected. The author advises placing casts on the lower extremities from the groin downward holding the hips and knees in a few degrees of flexion, the ankle at a right angle and the hips in neutral rotation or with the toes slightly turned in. The upper extremities should be placed at right angle abduction, external rotation and with the elbow at a right angle.

The importance of this type of treatment cannot be over impressed as it is the only thing of value that has yet been offered in the treatment of these cases. The abstractor goes a step further in placing these patients at rest, in that all cases with this disorder showing any paralysis have a cast applied including the paralyzed extremities, but in addition, in all cases the spine is included in the cast. The spine is the primary location of the disease and it is my opinion that it is of greatest importance to maintain and minimize their motion here as well as in the paralyzed extremities. In a series of more than 200 cases in the past two years this has been the method used, and in many cases very gratifying results have developed.

Jackson, April 10, 1938.

HOSPITAL STAFF TRANSACTIONS

VICKSBURG HOSPITAL STAFF MEETING

1. The meeting of the Staff of the Vicksburg Hospital, Inc., was called to order Feb. 10, at the usual hour.

2. Routine business was transacted; mortalities occurring during the preceding month were discussed. Regular annual report of the past year's activities was presented.

3. The following scientific program was presented:

(a) Cholecystitis, Acute, With Choledocholithiasis: Case Report.—Dr. W. H. Parsons.

(b) Moving Picture of the Eye.—Dr. Alston Callahan.

3. Discussion of Recent Literature.—Staff.

ABSTRACT: CHOLECYSTITIS, ACUTE, WITH CHOLEDOCHOLITHIASIS: CASE REPORT

W. H. Parsons, M.D.

The patient, a white female, 33 years of age, was referred to the Clinic, Dec. 12, 1937. The chief complaint at that time was of severe pain in the right upper abdominal region. Approximately two years ago, a dull aching pain appeared in this vicinity; the discomfort remained localized from the very onset, to this area. The pain was accompanied by a feeling of fullness and bloating. At first intermittent in character, it was not related to the ingestion of any particular type of food, but gradually the episodes of pain became more frequent, more severe and left as their legacy residual soreness. In June, 1937, following ingestion of a normal meal, an intense colicky pain appeared in the right upper abdominal quadrant with radiation posteriorly to the back and to the scapula. Nausea and vomiting occurred. There was neither jaundice nor alcoholic stools at that time. The following day the pain shifted to the right lower abdominal quadrant and the patient, elsewhere, was informed that an acute appendicitis existed and in another hospital appendectomy was done. For two weeks following appendectomy she seemingly did nicely. There was then a hard chill. So far as could be learned from questioning, without any particular laboratory investigations, quinine and castor oil were administered. The former resulted in a fairly marked attack of nettle rash.

Following the appendectomy referred to, pain in the right upper abdominal quadrant became more frequently associated with the intake of fatty and fried foods. In short, a typical qualitative dyspepsia became evident. The pain shifted in location more toward the midline and was at times so intense that breathing was accomplished with difficulty. On several occasions following surgery, the bowel movements were noted to be clay-colored, but jaundice was not observed and there were neither chills nor fever. Residual soreness following each severe attack of pain was definite.

On Dec. 14, 1937, at about midnight, a dull aching pain over the gall bladder region caused the patient to awaken. The following day the pain was more intense, was colicky and radiated posteriorly to the shoulder. There was severe nausea and vomiting of light yellow fluid. The pain persisted and two days later there was fever, but there were no chills. The patient's local physician was summoned and a diagnosis was made of acute cholecystitis with stones. At that time hospitalization was declined. The patient became much more ill, became irrational and in spite of hypodermoclyses and the other usual conservative measures that could be employed in the home she did poorly. There was incessant vomiting, there was constant pain, there was fever and on the eighth day following the onset of the acute attack, the patient entered the Vicksburg Hospital.

A review of the patient's history by systems was not remarkable, with these exceptions:

Since the onset of the patient's illness two years ago her general health had been poor. Before that time she had been in most excellent health. No marked gain or loss of weight has occurred.

The eye, ear, nose and throat history was not remarkable, except that until onset of present acute attack, there had been no discoloration of the sclerae.

The gastro-intestinal history presented several salient points formerly outlined in a discussion of the present chief complaint.

There had been shortness of breath accompanying the attacks of severe abdominal pain, but during the interim, the patient was able to do all of her household work without difficulty. There had been neither percordial pain, hemoptysis, cough, cyanosis or edema of the extremities.

The urologic and menstrual histories were not remarkable.

There had been no significant former illnesses. There had been a simple fracture of the left forearm at seven years of age. There had been no previous surgery except appendectomy as formerly indicated.

The family history was not relevant to the present pathology. Careful questioning elicited no history of any allergic disturbance.

Examination showed an acutely ill, adult white female. The blood pressure was systolic 110, diastolic 70. The temperature was 101 degrees. Pulse rate 100. Respiratory rate 12 (shortly before being referred to the Clinic, a moderately large dose of morphine had been administered.) The patient was a very obese, short white female, 33 years of age, was mentally dull and was aroused with difficulty. She was not well oriented as to time or place. The skin was a dark greenish brown, was dry and warm. The nail beds were cyanotic. The pupils were contracted. There were no cutaneous ulcerations. There was no lymphadenophthy noted.

The head was symmetrical, the hair clean. The sclerae were discolored, a brownish green, and the pupils, definitely contracted, were fixed but equal. The lips were mildly cyanotic and dry. It protruded normally in the midline. The teeth and gums were in excellent condition. The tonsils showed no evidence of infection.

Examination of the chest showed the respirations 16 per minute, regular and free. The breasts contained no tumors and there was neither discharge from or retraction of the nipples. The areolae were non-pigmented. The apex beat and point of maximum impulse were noted in the left fifty interspace, eight centimeters from the midline. The heart was not enlarged to percussion and no murmurs were heard. The lungs expanded normally. There was no retraction of or bulging of the interspaces and there was no lagging of the chest. There was no change in the vocal or tactile fremitus and no alteration in the percussion or auscultatory notes. There were no adventitious sounds heard.

The abdomen was covered with a very thick panniculus and was slightly distended. There was definite tenderness and decided rigidity in the right upper abdomen. A mass, interpreted as being the gall bladder, was felt in the right upper quadrant. An incisional scar was present in the right lower abdominal quadrant. There was no evidence of intraperitoneal fluid present. Palpation of areas other than the right upper abdomen was essentially negative. There was, however, definite tenderness over the entire abdomen.

The pelvis and extremities were not highly remarkable. The later, normally and fully developed, yielded normal reflexes were otherwise not remarkable.

It was felt that an acute and chronic cholecystitis with probable cholelithiasis and choledocholithiasis existed. It was felt also that acute and chronic hepatitis was present, that the patient was possibly hypothyroid and that there was pathologic obesity of moderate severity.

The patient was immediately hospitalized and placed at complete rest. Adequate glucose, saline and calcium were given intravenously. Multiple small blood transfusions were administered. The patient was put in a modified Fowler's position and ice caps applied to the right upper abdomen. Under the above regime, there was slight improvement.

The leucocyte count, at the time of admission, was 19,000 with 80% neutrophiles. The hemoglobin was 74% (12.58 grams). The blood chlorides were 643 and the icterus index was 20.

On the following day employing cyclopropane anesthesia, a right upper rectus incision was made, the omentum was found plastered over the gall bladder; the gall gladder, greatly enlarged and distended, was very acutely inflamed. There were areas of edema, the serous covering was exceedingly friable. The liver was enlarged, the capsule was under tension. Appropriate packs were inserted, the gall bladder was opened, a purulent material was removed. Fifteen various sized stones were removed. The common duct was palpated and found to contain a stone. The stone, however, was impacted low in the duct and it was not thought appropriate at that particular time to incise the duct. Therefore, a large Pezzar catheter was sutured in the gall bladder and the wound was closed. The operative diagnosis was acute cholecystitis and hepatitis with cholelithiasis and choledocholithiasis.

The usual postoperative care was rendered, consisting of multiple small blood transfusions with an adequate intake of glucose, saline and calcium and the institution of continuous duodenal drainage. The postoperative course for several days was not particularly satisfactory. There was at first no drainage from the Pezzar catheter, though some bile did leak around the stab wound. The urine output was decidedly lower than was desirable. The duodenal drainage was moderate in amount and was accompanied by a tinge of bile. The patient's temperature was 103, the pulse rate was 140. There was no abdominal distention. On the following day the patient's condition was not considered at all satisfactory.

At 4:00 p. m. on the second postoperative day there was definite cyanosis, the expiratory excursion was very shallow and it was felt that an atalectasis existed. Carbon dioxide with oxygen was administered by inhalation and repeated at intervals. The urinary output was still exceedingly scant. There was no abdominal distention, the duodenal suction was working satisfactorily, the blood pressure was essentially normal. The therapy formerly outlined was continued.

On the following day the patient was still exceedingly dull. Blood chemistry was again estimated and the urea nitrogen was not found significantly elevated.

On the fourth postoperative day, progress was decidedly improved. An adequate discharge of bile had been established, the urinary output was well nigh normal, the duodenal tube had been removed. At 7:00 p. m. on that day there was a sudden sharp pain in the right lower chest, accentuated by inspiration. The temperature immediately rose to 101 degrees. Examination of the chest showed no evident displacement of the heart. There were fine rales over the lower two-thirds of the right chest posteriorly with flatness on percussion over this area. There was increased tactile and vocal fremitus with decreased breath sounds and it was felt that a postoperative lobar pneumonia existed or that atalectasis had recurred. Later it became evident that the condition was an atalectasis and it again yielded to treatment.

The postoperative convalescence from this time forward was uneventful. The patient was discharged on the fifteenth postoperative day, the catheter still being in place in the gall bladder.

The patient re-entered the hospital Feb. 3, saying that since discharge she had improved continuously. There was still a discharging sinus at about the midportion of the former operative incision. The patient was hospitalized and again prepared for surgery in the usual fashion and on the following day, under cyclopropane anesthesia, the abdomen was reopened. The gall bladder was found intimately adherent to the small intestine, particularly to the duodenum. The gall bladder was grossly diseased and contained two stones. The common duct was visualized without difficulty, it was enlarged and aspiration yielded bile considered pathologic. The common duct was then opened through the usual incision. Six stones were removed from the common duct and two from the hepatic ducts. A catheter was then inserted into the common duct and held in place by appropriate sutures. The gall bladder was removed without great difficulty, except that a raw area was left in the liver from which some oozing occurred. This ultimately was controlled by suture. A Penrose drain was left in place and the abdomen closed. The operative diagnosis was cholecystitis, chronic, cholelithiasis, choledocholithiasis.

The usual postoperative therapy was rendered. It had been found previous to surgery that all laboratory studies, including the bleeding and coagulation times, were essentially normal. The patient reacted satisfactorily. There was a small amount of discharge of bloody material about the drainage tube. Bile drained quite satisfactorily from the catheter in the common duct. There were no postoperative complications. On the eleventh postoperative day, lipiodol was injected into the catheter in the common duct and films showed the lipiodol distributed along the duct and entering the small intestine. There was no evidence noted of remaining stones or other ductal pathology. The patient was discharged from the hospital on the fourteenth postoperative day and returned to her home. She has since reported to the Clinic, the common duct tube has been removed, the operative wound has solidly healed, the icterus index is normal and all other laboratory studies are normal.

This patient presents an example of extensive disease of the biliary tree in a relatively young individual. The value of cholecystostomy in the presence of an acute infection in the gall bladder is stressed. We have found cholangiograms of decided value. They may determine if residual pathology is present and they indicate the time at which drainage inserted into the ductal system may be removed.

VICKSBURG SANITARIUM

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held Monday, April 11, and after a supper served at 6:30 p. m., was called to order by the president Dr. Leon S. Lippincott, with fourteen members and two guests present. The program included:

Reports from the Records Department and Analysis of the Work of the Hospital.

Special Case Reports:

1. Recurrent Ovarian Cyst Following Partial Resection of Ovary.—Dr. G. M. Street.

Discussed by Dr. S. W. Johnston, Dr. J. A. K. Birchett, Jr., Dr. W. E. Johnston.

2. Cholelithiasis in Negroes (Two Cases).—Dr. J. A. K. Birchett, Jr.

Discussed by Drs. S. W. Johnston, George Street, L. J. Clark, and G. C. Jarratt.

3. Pyonephrosis Due to Obstruction of Ureter From Calculus With Recovery.—Dr. R. A. Street, Jr.

Discussed by Drs. George Street and J. A. K. Birchett, Jr.

Report on Vital Statistics.—Dr. F. Michael Smith, Director Warren County Health Department.

Demonstration of Selected Roentgen Ray Studies—Carcinoma of Inferior Maxilla; Pulmonary Tuberculosis (Two Cases); Vacuum Sinusitis, Maxillary; Cholelithiasis (Two Cases); Duodenal Ulcer; Nephrolithiasis, Bilateral; Nephrolithiasis (Two Cases); Ureteral Calculus.

Three-Minute Reports of the Literature of the Month:

Dr. S. W. Johnston—Sulfanilamide.

Dr. W. E. Johnston.—The Use of Amniotic Fluid in Orthopedic Conditions.

Dr. L. S. Lippincott.—Intradermal Test for Pregnancy.

The next meeting of the staff will be held Tuesday, May 10, 1938.

ABSTRACT: CHOLELITHIASIS IN NEGROES

J. A. K. Birchett, Jr., M.D.

—Case 1—

Patient.—Colored, female, age 45.

Present Complaint.—Cramping pain in the abdomen with nausea and vomiting.

History of Present Complaint. — Patient states that for the past six or seven years she has been to several doctors for relief of general cramplike abdominal pain which occurs approximately once or twice each month and is associated with cramping in the upper abdomen, with weak stomach, and one or two days after the acute pain has subsided, she develops a very severe diarrhea with the passage of much mucus and associated with straining of the bowel, but no blood. In between times, she suffers with marked constipation. She has noticed that there are certain foods which she cannot readily take, such as fried fatty foods, and she is very fond of sweets, such as apple pie and other pastries, and these invariably cause her to have digestive disturbance. There has never been any jaundice; her stools are of uniformly good color, and she does not have any sweats, chills, or fever.

Past History.—Ten years ago patient presented herself to this clinic complaining of a large lower abdominal mass, associated with painful and prolonged menstruation and loss of weight and general debility. At that time, diagnosis was made of fibroid tumor of the uterus, with possible ovarian disease. The patient was subjected to laparotomy for the purpose of removing the abdominal mass, but on opening the abdomen, the mass was found to be so firmly adherent to the abdominal and pelvic structures that it was impossible to do any surgery, that is, exploration of the ovaries or the removal of any of the structures. Tissue was not taken for a biopsy because of adhesions of the bowel over the growth, and a diagnosis of a possible malignancy was made, the abdomen closed, and the patient was later subjected to deep therapy x-ray with complete subsidence of the abdominal tumor and a subsequent return to a normal health. She gained over forty pounds of weight and has been perfectly well up until the present complaint. It is our surmise that this mass was a fibroid and the use of x-ray caused its subsidence. Usual childhood diseases. Menstruation began at age of eleven. She has not menstruated since 1928. Pneumonia when fifteen years of age. Only had one pregnancy which resulted in a normal delivery.

Physical Examination.—Well-developed and nourished negro female of middle age. On admission to the out-patient department, she was suffering with much pain because of some abdominal discomfort. The teeth were in fair condition, tonsils large and cryptic, thyroid negative, no glands of cervical adenopathy. Heart rate—rapid, 110. Fever, 100. Blood pressure: 180/100. Heart was otherwise negative. Lungs were negative. The abdomen showed a well-healed low midline scar. There is general abdominal tenderness, more marked over the region of the gall bladder. Pelvic examination shows a movable pelvic mass about the size of a small orange, which is the remnant of the uterine tumor. The cervix is atrophic. There is no evidence of any hemorrhoids and a catheterized specimen of urine is clear.

Clinical Laboratory. Urine showed many pus cells, large trace of albumin, slight possible trace of acetone and sugar, 1.2%. Wassermann, Kline and Young and Kahn test negative. The blood count showed increase in the total leucocyte count and slight anemia, red blood cells being 3,400,000.

Procedure.—A tentative diagnosis was made of possible gallbladder pathology, also pancreatic lesion, also the possibility of malignancy of the colon because of the intermittent attacks of diarrhea and constipation and the passage of large dark copious blood-stained stools streaked with mucus during the attacks of cramping. X-ray study of the gallbladder showed no gallbladder filling and opacity, commensurate with the possibility of gall stones. Examination of the colon showed no evidence of any growth or any deformity commensurate with growth. A diagnosis was made of cholelithiasis and exploratory laparotomy was done, which revealed a large thickened gallbladder which was mostly embedded and hooded over by a smooth thickened liver edge. The common duct was not dilated. There were many adhesions between the fundus of the gallbladder and the duodenum and the hepatic flexure of the colon. There were no masses in the pancreas, although the head of the pancreas seemed to be abnormally large. The hand was passed into the pelvis and this area was free from adhesions, only a small mass being palpated, which was the remains of the uterus. Colecystectomy was done because of the marked inflammatory and thickening of the gall bladder wall. Surgery was well tolerated. Patient still continues to show evidence of sugar in the urine and since her operation, has had an attack of diarrhea similar to the previous attack stated in the above history.

* * * * * *

—Case 2—

Patient.—Colored female, age 28, school teacher.

Chief Complaint.—Acute upper abdominal pain with nausea and vomiting, first began six days ago.

History of the Present Complaint.—Patient has had upper right abdominal pain at times for the past four or five years and has been associated with the taking of food. She has been seen by her family doctor during her attacks and he had made a diagnosis of gallbladder disease with stones. Six days ago had one of her usual attacks, but this necessitated several hypodermics of morphine to get relief, which was unusual for her, and pain became centered in the upper right quadrant of the abdomen, associated with sweats and fever and she was unable to retain any nourishment whatsoever. There has been no diarrhea and she has begun to appear slightly jaundiced.

This patient was seen at home in consultation with her family physician and a diagnosis was made of empyema of the gallblader because of a tender right upper quadrant mass and blood count of 18,000 with 18% polymorphonuclears. The patient was advised to have immediate surgical intervention, but she wished to avoid this if possible and palliative treatment was resorted to. As the condition was getting steadily worse, the patient was soon willing to undergo surgical intervention for relief.

Past History.—She has one baby, with the development of the present symptoms of gallbladder disease beginning a few months after delivery. Her child is now six years old. As stated in the above history, patient has had several attacks of abdominal colic and has had food distress following the taking of extremely fatty or highly seasoned foods.

Physical Examination.—Well-developed mulatto negro female complaining of acute abdominal pain. The head, neck, nose and throat were essentially negative. Heart was normal. Lungs normal. Abdomen rigid with tender mass in the upper right quadrant, suggestive of gallbladder. Pelvic examination negative. No masses. Uterus was smooth and forward and there was no cervical irritation. Catheterized specimen of urine was negative. There was a slight tendency to icterus and the urine was highly colored with a suggestion of bile.

Clinical Laboratory.—Color of the urine slightly high, rare pus cells, fresh blood, no albumin, 2% sugar and no bile. Blood: hemoglobin, 87%, erythrocytes, 4½ million, total leucocytes, 16,800, differential—lymphocytes, 17, large lymphocytes, 14½, neutrophils, 68½, and no malaria. X-ray, flatplate, no gall stones demonstrated. Lungs were clear, but the diaphragm on the right side is abnormally high. Wassermann, Kline and Young, Kahn and Eagle flocculation tests all negative.

Procedure.—As we felt that we were dealing with an empyema of the gallbladder, exploratory procedure was advised and, under general anaesthesia, upper right rectus incision exposed a large markedly thickened, purplish appearing gallbladder, which was adherent to the duodenum and hepatic flexure of the colon by easily separated adhesions. There was some enlargment of the liver, with a marked rounding of the head of the pancreas, this area was not further investigated because of the acute condition of the patient. A cholecystostomy was done with the removal of six gall stones from the thickened gallbladder, one of which was firmly fixed in the cystic duct and was responsible for the condition. A probe was then passed through the cystic duct into the common duct without difficulty because of the marked enlargement of the cystic duct and no stones were encountered. Because of the acute condition of the gallbladder, and the marked evidence of back pressure in the liver, a cholecystostomy was done. The patient had a rather stormy convalescence for the first four days, there being fever, nausea and vomiting, but with administration of glucose and the complete continuous drainage of the stomach through the duodenal tube, the condition of the patient was markedly improved on the fifth day and the progress was uneventful from that time forward. There was free flow of bile from the duodenal tube at the end of the third day and at the end of the fourth day the dark thick bile which was draining from the cholecystostomy drain began to become normal in color and consistency. This tube was cut off level with the wound and permitted to drain after the patient was discharged from the hospital on her twenty-first postoperative day. Her condition has continued to improve and she is now back at her work as school teacher, feeling well.

HONOR ROLL

The following have contributed to the Mississippi State Medical Association Section this month:

County Editors: Adams—Lucien S. Gaudet; DeSoto—L. L. Minor; Leflore—W. B. Dickins; Washington—J. A. Beals; Winston—M. L. Montgomery.—5

Societies: Adams County, Lucien S. Gaudet; Central, Lawrence W. Long; Delta, F. M. Acree; Issaquena-Sharkey-Warren Counties.—5.

Interpreting Medical Literature: E. T. White, Harvey F. Garrison, Felix J. Underwood, Alston Callahan, A. Street, J. A. Beals, Thomas H. Blake.—7.

Hospitals: Vicksburg Hospital, W. H. Parsons; Vicksburg Sanitarium.—2.

Others: Jos. E. Green, W. L. Little, T. M. Dye, Felix J. Underwood, W. H. Anderson, Ernest Theodor Krebs, Jr., R. N. Whitfield.—7.

Your editors thank you.

WOMAN'S AUXILIARY
TO THE
MISSISSIPPI STATE MEDICAL ASS'N

President.... ....Mrs. John B. Howell
Canton
President-elect..............Mrs. Hugh Johnston, Jr.
Vicksburg
1st Vice President..........Mrs. C. C. Hightower
Hattiesburg
2nd Vice President.............Mrs. Henry Boswell
Sanatorium
3rd Vice President...........Mrs. F. L. Van Alstine
Jackson
4th Vice President........Mrs. Temple Ainsworth
Jackson
Recording Secretary.................Mrs. H. C. Ricks
Jackson
Treasurer..........................Mrs. J. D. Simmons
Cleveland
Parliamentarian.................Mrs. F. E. Rehfeldt
Jackson

Councilors: 1st district, Mrs. T. G. Hughes, Clarksdale; 2nd district, Mrs. C. M. Roberts, New Albany; 3rd district, Mrs. W. L. Orr, Fulton; 4th district, to be appointed; 5th district, Mrs. L. H. Clark, Vicksburg; 6th district, to be appointed; 7th district, Mrs. L. L. Polk, Purvis; 8th district, Mrs. W. K. Stowers, Natchez; 9th district, Mrs. D. J. Williams, Gulfport.

The fifteenth annual meeting of the Woman's Auxiliary to the Mississippi State Medical Association held in Jackson April 19-20, proved one of the most interesting conventions since the Auxiliary was organized.

The past-presidents' luncheon in the home of Dr. and Mrs. F. L. Van Alstine was enjoyed by eight past-presidents: Mrs. Dan J. Williams, Mrs. W. Johnston, Mrs. W. H. Frizell, Mrs. H. F. Garrison, Mrs. L. L. Polk, Mrs. Henry Boswell, Mrs. F. L. Van Alstine and Mrs. A. G. Wilde.

Mrs. C. C. Hightower, president, and Mrs. John Howell, president-elect, Mrs. W. L. Little, wife of the president of the Mississippi State Medical Association, and Mrs. James S. McLester, of Birmingham, were the guests who enjoyed the luncheon hour with the past-presidents.

At the business session reports from the various officers, councilors, and auxiliaries showed progress in all lines of endeavor undertaken during the year.

A complete and attractive yearbook was issued and distributed to the various auxiliaries. This book contained suggested programs to be used by health programs in other clubs, and several three-minute talks on suggested subjects to be used on such programs.

The contributions to the preventorium trust fund was $281.63.

The several auxiliaries reported varied and useful projects accomplished in their local communities.

The reception given by Dr. and Mrs. Harvey F. Garrison honoring the officers of the medical association and the auxiliary was a most enjoyable affair.

The weather man was not very kind in the weather he gave for the evening entertainment, given by Dr. and Mrs. H. R. Shands, Dr. and Mrs. Frank Hagaman, and Dr. and Mrs. Carter O'Ferrall.

Screens, flood lights and other necessary preparations for an out-door entertainment were made useless by an afternoon rain, but quick preparation was made on the second floor of the new capitol and the pageant, "Mississippi Glory," was beautifully presented by the young ladies of Belhaven College under the dome lights of the rotunda of the new capitol, which together with the effective use of the stairways greatly enhanced the effective tableau.

The lovely reception in the beautiful colonial home of Dr. and Mrs. Shands followed the program.

The luncheon at the Edwards Hotel was well attended by the auxiliary members and visitors, but because of several luncheons with discussions on various subjects, and guest speakers bringing important papers to the medical association, very few of the doctors were able to attend.

The President's Ball, with Dr. Long directing and Dr. and Mrs. W. L. Little leading the grand march, and the floor show and general dancing which followed, gave everyone a most enjoyable evening which extended into the wee small hours of the morning.

IN MEMORY

of Mrs. R. D. Sessions, Natchez, Miss., and Mrs. John Darrington, Yazoo City, Miss.

(Read before the Woman's Auxiliary to the State Medical Association).

May I ask that you, with me,
A few moments spend,
While we pay a small tribute,
To these who were our friends.

Who have answered the summons,
And are with us no more,
But have crossed over the river,
To the beautiful shore.

They are where there is no need
Of medical skill,
Where sickness is unknown,
No one ever ill.

But just in God's presence
Forever to be,
And praise him forever
Through eternity.

So how can we mourn,
When we know this is true?
They are far happier now
Than I am, or than you.

So let us be always
Resigned to God's will
And ever be ready
His commands to fulfill.

May God's richest blessings
Attend those who mourn,
Because these dear ones
From their firesides have gone.

Let them try to remember
They have only gone home,
And are lovingly waiting
For the others to come.

Now, be it resolved,
That what we have said
At this meeting today,
On the minutes be spread.

And a copy be sent
To the loved ones in distress,
And another one offered
To be used by the press.

—By Mrs. W. L. Little.

FROM OUR NEW PRESIDENT

One of the main objects of the Woman's Auxiliary is to extend the aims of the medical profession to all organizations which look to advancement of health and education.

I believe that every auxiliary member should become interested and hold influential positions in other organizations in their county and state, not alone to make friendly relationship but to help perform the Auxiliary's greatest service by bringing about an understanding and co-operation between the profession and the public.

Our organization was brought into being for a definite purpose. As women we were long ago set apart and designated as helpmates. The Auxiliary has a purpose to serve humanity, a field of endeavor, not a playground; we should keep one step ahead of the social worker.

Medicine is an individual walk of life—patient and doctor—and must be free. Socialized medicine means that the doctor is no longer a free man but at the beck and call of politicians. If medicine becomes commercialized it will be largely because of bad ethics within the profession.

Medicine has a great responsibility, the Woman's Auxiliary has a great responsibility—let us search our hearts and see if we have justified having been formed. The Auxiliary is greater than any one member but depends on each member and her relation to the Auxiliary as a whole. Doctor's wives must keep together for the salvation of the profession.

Each of us has a place in life. The physician's place is among the sick and those who need guidance in health. By our choice we have taken this place with him.

Wives should encourage their husbands to attend the meetings of their medical society and especially the State meetings. If they do not go to the meetings and do not pull together there will be no meetings to attend.

I have every confidence that before another year rolls around, there will be many new members added to our list. I find an increasing interest in Auxiliary work along medical lines in connection with approved health organizations. There is a wide field for the spread of authentic medical information and our Auxiliary may distribute much material furnished by the American Medical Association through different organizations.

I urge that every effort be made to promote the circulation of "Hygeia." That is our definite responsibility, not necessarily through the sale, but through its purchase and placement in schools, libraries, beauty parlors and other places in which magazines are read. I suggest that health chairmen of parent-teachers organizations be reminded of the excellent reading and study matter it contains.

If the opportunity offers, keep yourself informed on legislation of interest to the medical profession and if requested by your state medical society, help if possible. I have been told that the course of a legislation bill through its various channels is one of great interest.

I trust that you will not put too small an emphasis on the social or friendly side of the Auxiliary. To me it has no finer attribute than the mutual understanding of each other as doctors' wives. You cannot be an honored part of that great profession, without gaining a deep insight into the real values of life.

For centuries the medical profession has dealt with the sorrows and tragedies of human existence and learned to cope so successfully with them that the span of life has progressively lengthened. Now, added to that have come the marvelous discoveries which prevent illness. Causes were sought for; the preventive treatment found. Gone are epidemics of smallpox, typhus, typhoid, yellow fever, malaria and diphtheria, and tuberculosis can be cured, if treated in time. Humanity lives in a state of blissful oblivion of these things. It enjoys safe water, clean milk, and much else as well, and all because of the untiring study, research and sacrifice of the medical profession. So I pray we cherish the ethics that have been theirs through the centuries. May we as individuals and as an organization look up to their ideal as our beacon light.

Today the medical profession is faced with many problems and keeping in touch with these problems is like painting a picture, a veritable moving picture with a wonderful panorama of constantly changing scenery. Doctors, wives are expected to keep up with the advance in medicine, or, at least to keep within hailing distance of it. Through our organization, we can best accomplish this. Here, we as wives of present-day physicians, not only pledge our support to the profession, but by our endeavors to be useful, help to paint this picture, using our brush freely, sometimes daubing, perhaps, but may I suggest that we keep daubing? Art, too, advances.

Times have changed, are still changing. Many of us no longer remain so closely confined within our homes.

Being a physician's wife is really a profession itself, although it has never been listed as such. It is a hard profession, an exacting one, in fact a delicate calling. In this profession we are expected to use our own mental powers, and yet hold our tongues. "Yes," we women do talk a lot, but we never tell all that we know."

Aside from our duties to God, to our Church and other organizations may I mention the insistent telephone and the door bell? These often call for quick thinking and sometimes, I long for "second sight." Midnight calls for the doctor mean midnight calls for us, as well. And, do we not assume burdens of anxiety and worry over the dangerously ill patients in our attempt to lighten the load on the doctor's shoulders and show him our sympathetic interest?

Stories, sentimental and cynical, have been written about the doctor. But—where is the story about the doctor's wife? No history or glorification has been accorded the doctor's help-mate. Yet many times have her gallant service and heroic acts been the means of saving life. The doctor has been canonized on canvas and in bronze. Hospitals, parkways, boulevards and libraries have been dedicated to him; poets and philosophers have, in rhyme and prose,—sometimes in lumbering language—made him a little more than mortal and a little less than a god. And—rightly so, he deserves all the recognition we can give him. But—what of the doctor's wife? She is not written in song and story; she is not commemorated. Yet her life, too, is consecrated to service and, inevitably she sacrifices much, not of her personal pleasure alone, but also the sacrifice of her husband's counsel and help so needed in the care of their own children and of their own home affairs while he attends to the wants of his patients.

Without reward, without professional recognition, the doctor's wife stands by him, and by his profession, comforting, urging on higher and higher for greater service. And all of this she gives, aside from the miracle of all miracles, the Miracle of Motherhood. Yet when reference is made to the great men who have developed medicine: Pasteur, Lister, Jenner, McDowell and others, no mention is made of their wives. I cannot believe that this is studied neglect. It may be an oversight, that some day will be corrected. For although not mentioned nor implied in chronicles concerning our noted men, the wife is the mirror goddess of the doctor's life, reflecting and directing his earnest, humble effort to be serviceable to his fellowman in the magic manner which makes, of every doctor, A GREAT MAN. I know that I speak for all of these women who are here as your newly elected officers that we are tremendously impressed with the responsibility, the duties which you have intrusted to us. I know that I speak for all of them when I say that we approach these duties with a deep sense of humility. We know that with your help and your co-operation and your tolerance of our mistakes and our shortcomings we may measure up in some slight degree to what you expect of us.

Personally, I am most deeply appreciative of the honor which goes with the office of President of the Woman's Auxiliary to the State Medical Society.

The auxiliary has been well-conducted during the past administration under the splendid leadership of Mrs. C. C. Hightower who has the wonderful gift of tact. Tact is not a seventh sense but is the life of all the five. It is the open eye, the quick ear, the judging taste, the keen smell and the lively touch; it is the interpreter of all riddles, the surmounter of all difficulties, the remover of all obstacles.

May I pledge our sincere and earnest efforts to steer a course worthy of the medical profession, our beloved predecessors, and you.

It is our hope that we justify your trust in us, and that you may feel your organization is truly "the tie that binds."

MISSISSIPPI PHYSICIANS WHO DIED DURING 1937

J. M. Barnett, 61, Ofahoma; Nov. 7; L. W. Bayne, 64, Hattiesburg, Mar. 20; T. D. Bourdeaux, 58, Meridian, Nov. 23; E. D. Boozer, 53, Greenwood Springs, Jan. 12; D. M. Busby, 53, Pheonix, Dec. 27; L. O. Carruth, 80, Tupelo, Aug. 29; E. M. Cole, 55, Philadelphia, Mar. 5; G. T. Cranford, 60, Sept. 30; W. V. Davis, 74, Booneville, Mar. 7; S. R. Deanes, 75, West Point, Nov. 26; E. H. Deberry, 65, Hazlehurst, July 18; W. M. Duke, 56, Minter City, May 26; W. M. Eggleston, 81, Vicksburg, Sept 20; Horatic Erwin, (col.), 46, Vicksburg, April 2; L. C. Feemster, 63, Tupelo, May 25; W. W. Hall, 60, Shelby, Jan. 1; Hart, Leonard, 54, Meridian, Jan. 19; John B. Huff, 71, Taylorsville, June 3; J. R. Jackson, 81, Hattiesburg, Dec. 25; D. S. Johnson, 57, Braxton, Dec. 27; R. L. Johnson, (col.), 66, Jackson, July 20; A. C. Lofton, 61, Lucien, Feb. 21; J. C. Mazique, (col.), 67, Natchez, Dec. 12; R. L. Mercer, 69, Shelby, Sept. 10; D. G. Mohler, 67, Laurel, Aug. 11; A. L. Monroe, 63, Newton, Nov. 11; S. Myers, 64, Vicksburg, April 30; John F. McCarty, 71, Ovett, April 3; W. A. McMahen, 54, Union, Nov. 15; N. W. Nanney, 57, Fulton, Dec. 7; M. L. Reed, 84, Fulton, Feb. 24; J. L. Robertson, 75, Learned, Dec. 27; E. E. Robinson, 60, Meridian, April 6; T. E. Stafford, 65, Vossburg. Nov. 10; T. E. Steen, 65, Florence, May 27; C. W. Stewart, 59, Oskya, Oct. 13; G. F. Stone, 53, Tupelo, July 18; O. H. Swayze, 66, Yazoo City, June 13; G. S. Tanner, (col.), 42, Brookhaven, Sept. 26; Watkins, C. B., 70, Clinton, Mar. 19; H. W. Weimer, 59, Vicksburg, Aug. 9; L. A. Welch, 68, Tylertown, Dec. 12; M. J. Wilhoit, 54, Water Valley, Mar. 4; John L. White, 55, Sand Hill, Dec. 3.

THE MISSISSIPPI STATE HOSPITAL ASSOCIATION THROUGH

THE HOSPITAL SERVICE CORPORATION OF MISSISSIPPI

A NON-PROFIT SERVICE

OFFERS TO THE PATIENTS OF THE DOCTORS OF MISSISSIPPI

24 days of hospital care the first year.

Room, meals and special diets if necessary.

Operating room service.

Nursing supervision and general nursing care.

Routine laboratory service.

Ordinary medicines, surgical dressings, etc.

Emergency room service.

X-ray service up to $10.00 in accidental injury cases.

Delivery room service

All other customary routine hospital service.

SUBSCRIPTION RATES

Two and one-half cents per day for private room.

Two cents per day for ward service.

Dependents may be included for less.

ADMISSION TO HOSPITAL ONLY ON PHYSICIAN'S ADVICE.

-- COURTESY CARDS --

DR. SEALE HARRIS
DR. SEALE HARRIS, JR.
The Diagnosis, Dietary Management and Medical Treatment of Internal Diseases
2234 Highland Avenue
Birmingham, Alabama

J. A. HUGHES, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
Suite 1805-6 Sterick Bldg.
Memphis, Tennessee

PERCY B. RUSSELL, JR., M.D.
Practice Limited to
OBSTETRICS
915 Madison
Memphis, Tennessee

EUGENE ROSAMOND
Pediatric Diagnosis
Rosamond Clinic for Children
Madison Avenue at Somerville
Memphis, Tennessee

Offices of
WILLIAM CALVERT CHANEY, M.D.
20 S. Dunlap Street
Memphis, Tennessee
Internal Medicine and Allergic Diseases

J. M. DORRIS, M.D., F.A.C.S.
General Surgery
Traumatic Neurosurgery
402 Physicians and Surgeons Bldg.
Telephone 5-1288
899 Madison Ave. Memphis, Tenn.

LUCIEN A. LeDOUX, M.D.
Gynecology and Obstetrics
Maison Blanche Building
New Orleans

DRS. HENDERSON & HALL
Dermatology and Syphilology
Radium and X-Ray as applied in this field
1403-1407 Exchange Bldg.
Memphis, Tenn.

A. L. BLECKER, M.D.
Practice Limited to
General Surgery and Gynecology
20 South Dunlap
Phones: Off: 6-1923 —:— Res: 4-4213

F. E. REHFELDT, M.D.
Gynecology and Abdominal Surgery
Jackson Infirmary
Jackson, Mississippi

J. WESLEY McKINNEY, M.D.
Ophthalmology
Exchange Building
(Baptist Hospital Annex)
Memphis, Tennessee

WALTER A. RUCH, M.D.
RAYMOND A. WALLACE, M.D.
Practice Limited to Obstetrics
Suite 202 Physicians and Surgeons Bldg.
899 Madison Memphis, Tenn.

ROWLAND W. HALL, M.D.
JAMES GRANT THOMPSON, M.D.
— Dermatology —
Standard Life Building
Jackson, Mississippi

DICK CAUTHEN McCOOL, M.D.
Nervous and Mental Diseases
Suite 219-223 Physicians and Surgeons Bldg.
899 Madison Avenue — Memphis, Tenn.

DRS. O. S. McCOWN — O. S. McCOWN, JR.
GYNECOLOGY — UROLOGY — SURGERY
899 Madison
Memphis, Tennessee

WILLIAM MILTON ADAMS, M.D.
Practiced Limited to
Plastic and Reparative Surgery
902 Madison Avenue
Memphis, Tennessee

HENRY G. HILL, M.D.
Clinic 847 Madison Avenue
Memphis, Tennessee
Practice Limited to:
Diseases and Injuries, Bones and Joints, Cripples and Deformities, Braces and Appliances

---

FRANK W. SMYTHE, M.D.
Practice Limited to
Surgery and Radium Therapy
Baptist Hospital Annex Memphis, Tenn.

THOMAS D. MOORE, M.D.
UROLOGY and UROLOGIC SURGERY
Suite 102-6
Physicians and Surgeons Building
899 Madison, Avenue
Memphis, Tennessee

R. EUSTACE SEMMES
Neuro-Surgery
Physicians and Surgeons Bldg.
Memphis, Tennessee
Phones: Off. 6-3288 Res. 2-9645

Compliments of
DR. JOHN P. HENRY
Suite 2005-6-7 Sterick Building
Memphis, Tennessee

DR. E. M. HOLDER
General Surgery and Gynecology
Suite 302 Physicians and Surgeons Bldg.
Baptist Hospital Annex — 899 Madison Ave.
Telephones: Office 6-2184; Res. 8-1640
Memphis, Tennessee

GILBERT J. LEVY, M.D.
Practice Limited to Diseases of Children
and Communicable Diseases
20 S. Dunlap St.
Memphis, Tennessee

DR. E. C. ELLETT
DR. R. O. RYCHENER
Ophthalmology
1720 Exchange Building
Memphis, Tennessee

HENRY G. RUDNER, M.D.
Clinic—Internal Medicine
1108 Madison Avenue Memphis, Tenn.

W. LIKELY SIMPSON, M.D.
Eye, Ear, Nose, Throat and Bronchoscopy
512 Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee

DR. WILLIAM F. HAND
Gynecology and General Surgery
519-21 Standard Life Bldg.
Jackson, Mississippi

CHARLES D. BLASSINGAME, M.D
414 Physicians and Surgeons Building
Memphis, Tennessee
Otolaryngorhinology
Bronchoscopy-Esophagoscopy

HARVEY F. GARRISON
HARVEY F. GARRISON, JR.
Pediatric Diagnosis
Diseases of Infants and Children
Lamar Life Building
Jackson, Mississippi

ROBERT H. BRUMFIELD, M.D., F. A. C. S.
General Surgery and Urology
McComb, Mississippi

DR. J. W. LIPSCOMB, JR.
General Surgery and Gynecology
410 Lamar Life Bldg.
Phones: Res. 1286; Office 4221
Jackson, Mississippi

LAWRENCE W. LONG, B.A., M.D., F.A.C.S.
410-412 Standard Life Bldg.
Jackson, Mississippi
GENERAL SURGERY
Surgical Diseases of Children

F. M. ACREE, M.D.
Greenville, Miss

DR. THOMAS H. BLAKE
414 Standard Life Bldg.
Jackson, Miss.
Practice limited exclusively to
Orthopedic Surgery

WILLIAM T. SATTERFIELD, M.D., F.A.C.S.
General Surgery
McLemore Clinic
919 E. McLemore Avenue
Memphis, Tennessee

DR. T. E. ROSS

— SURGERY —

Hattiesburg, Mississippi

W. H. PISTOLE, M.D.
General Surgery
Suite 214 Physicians and Surgeons Bldg.
(899 Madison)
Memphis, Tenn.

D. E. STATON, M.D., F.A.C.S.
Eye, Ear, Nose and Throat
and Bronchoscopy
Princess Theater Building
Columbus, Miss.

W. L. WILLIAMSON, M.D., F. A. C. S.

Gynecology

915 Madison Avenue

Memphis, Tenn.

WILLIAM T. BLACK, M.D., F.A.C.S.

Gynecology

Medical Arts Building

Memphis, Tenn.

DR. T. K. LEWIS
Cardiology
Cardio-Vascular-Renal Diseases
935 South 20th
Birmingham, Ala.

HUGH T. BEACHAM, M.D., M.S. (Surg.), F.A.C.S.
Genito-urinary Diseases
Suite 1110 Pere Marquette Bldg.
Phone Main 1300
New Orleans, La.

DOUGLAS D. BAUGH, M.D.
—CLINIC—
Diagnosis—Internal Medicine
First National Bank Building
Columbus, Miss.

DR. H. RANDOLPH UNSWORTH
Practice limited to Nervous and Mental Diseases
Hours: 1 to 5, by appointment
10 to 12 on Saturdays
Office: 819 Maison Blanche Building
New Orleans, La.

WALTER W. ROBINSON, M.D.

Grisler Clinic

1291 Union Avenue

Memphis, Tennessee

Specializing in

PATHOLOGY

ROENTGEN

DIAGNOSIS and THERAPY

DR. J. CASH KING

Practice limited to

RADIOLOGY

902 Madison Avenue

Memphis, Tenn. Telephone 6-7460

SHIELDS ABERNATHY, M.D., F.A.C.S.

HOWARD H. ASHBURY, M.D., Oncologist

CLINIC

For General Surgical and

Neoplastic Diseases

Complete Modern Radiological Equipment

1001 Madison Avenue — Memphis, Tenn.

DRS. DUNCAN & FLEMING
I. G. Duncan, B.S., M.D., F.A.C.S.
J. S. Fleming, M.D.
GENITO-URINARY DISEASES
CYSTOSCOPIC and X-RAY DIAGNOSIS
PROSTATIC RESECTION
Suite 1500-06 Commerce Title Bldg.
Memphis, Tennessee

WADE CLINIC
Wade Building
Hot Springs National Park, Arkansas
H. KING WADE, M.D., Urology
CHARLES S. MOSS, M.D., General Surgery
J. O. BOYDSTONE, M.D., General Medicine
JACK ELLIS, M.D., General Medicine
FRANK M. ADAMS, M.D., General Medicine
N. B. BURCH, M.D., Eye, Ear, Nose & Throat
RAYMOND C. TURK, D.D.S., Dental Surgery
A. W. SCHEER, X-Ray Technician
ETTA WADE, Clinical Pathology
MARY ALICE PHILLIPS, Clinical Pathology
MARJORIE WADE, Bacteriology

THE WOMAN'S CLINIC
W. T. Pride, M.D.
Carey Bringle, M.D.
James M. Brockman, M.D.
Gynecology Obstetrics
1460 Madison Avenue Memphis, Tenn.

R. T. NOWLIN, M.D.
Nowlin Clinic
Practice Limited to Surgery
1434 Hollywood Street, Memphis, Tennessee
Local and Long Distance Telephone, 4-1221

Compliments
JAMES W. BODLEY, M.D.
Memphis, Tenn.

ISAAC C. HUGGINS, M.D.
Practice limited to
UROLOGY and PROCTOLOGY
522-23 Standard Life Bldg.
Jackson, Miss.

DR.HENRY B. GOTTEN
INTERNAL MEDICINE
DIABETES
20 S. Dunlap
Memphis, Tennessee

O. A. SCHMID, M.D.
— NEUROLOGY —
Mondays and Tuesdays
910 North State Street
Jackson, Mississippi

GEORGE GARTLY, M.D., F.A.C.S.
SURGERY and GYNECOLOGY
1014 Farnsworth Building
Memphis, Tennessee

JOHN C. HENTHORNE, M.D.
— Pathologist —
Mississippi Baptist Hospital
Jackson, Mississippi

THE THREE MUSKETEERS BOOK SHOP
Peabody Hotel Building
Phone 8-2009 Memphis, Tenn.
Mail orders filled promptly

WRIGHT and FERGUSON
Funeral Home
Jackson, Mississippi

EDWARD CLAY MITCHELL — QUINN CLINIC
1073 Madison Avenue
Memphis, Tennessee
Practice Limited to
Infant Feeding and Diseases of Children
Hours: 10:00 A.M. to 12:00 M.
2:00 to 5:00 P.M.
By Appointment Phone 7-1307

DUANE CARR, M.D.
Diseases of the Chest
Endoscopy — Thoracic Surgery
Physicians and Surgeons Building
(Baptist Hospital Annex)
Memphis, Tennessee
Telephones: 8-3662; 2-3226; 2-2138

THE MEDICAL CLINIC
910 North State
Jackson, Mississippi
T. E. Wilson, M.D., Cardiology & Internal Medicine
George W. Owen, M.D., Allergy
John Bullock, M.D., Pediatrics: Allergic Diseases of Children
Gayden Ward, M.D., Internal Medicine, Gastroenterology
Robin Harris, M.D., Eye, Ear, Nose and Throat: Diagnosis.
Diagnostic Facilities: X-Ray, Electrocardiogram, Basal Metabolism Complete Clinical Laboratory,

MEDICAL, SURGICAL, DENTAL CLINIC
Drs. Whittington, Gaudet and Geisenberger,
405 Franklin St., Natchez, Miss.
Medicine
Surgery
Dentistry
Eye, Ear, Nose and Throat
Electrocardiography
Allergy
X-Ray Laboratory
Clinical Laboratory

A Valuable Adjunct in Chronic Arthritis

SULFUR DIASPORAL

(Doak)

Clinical reports (by Wheeldon and Main, Argy, Senturia, Woldenberg, Sullivan and Hess) indicate that Sulfur Diasporal is a valuable adjunct in the treatment of Arthritis, and that clinical results are more satisfactory than with any other method of treatment.

Write for reprints of important publications and information.

DOAK CO., INC.

Cleveland, Ohio

SOUTHERN SURGICAL
SUPPLY CO., Inc.

531 Gravier Street—New Orleans

LOOK

for your old friends

ALWAYS AT YOUR SERVICE

Bob Schneider • Tony Schneider

Buy

Your

Stage

Equipment

From

LOBDELL SCENIC STUDIOS

Serving the South Since 1922

ROSEDALE, MISS.

HOYE'S SANITARIUM

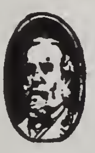
"IN THE MOUNTAINS OF MERIDIAN"
Meridian, Mississippi

SANITARIUM

For nervous and mental diseases, drug and alcohol addiction, rest and recuperation. Ten acres of beautiful grounds sufficiently removed from highway to insure privacy. All outside rooms, connecting baths. Modern treatment.

DR. M. J. L. HOYE, Superintendent

Formerly sixteen years Superintendent of East Mississippi State Hospital



Robert E. Lee Hotel

"The High Spot of Southern Hospitality"

Jackson, Miss.

300 Rooms, All Outside Exposures . . . with every Comfort and Convenience. No greater value-giving can be found anywhere.

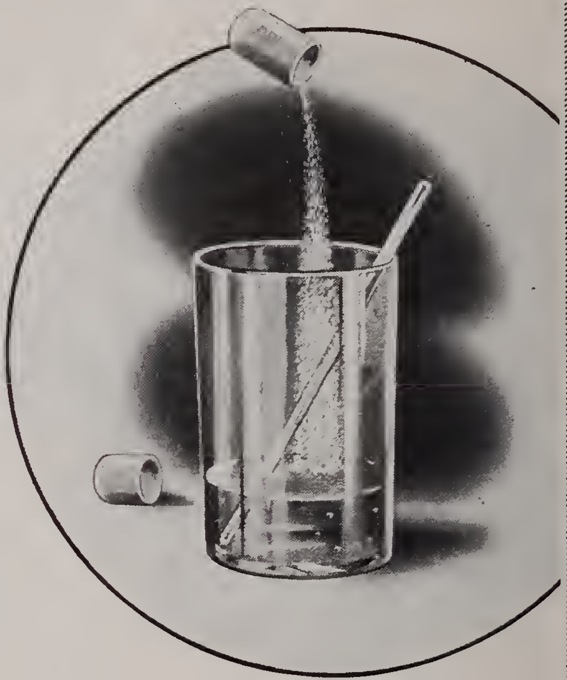
The most modern hotel in the state is daily becoming the most popular with a discriminating clientele.

STEWART GAMMILL, Manager STEWART GAMMILL, Jr., Asst. Mgr.

ROMSA-PULVIS

of Decisive Assistance
in the Treatment of
DIARRHOEA
and
ENTEROCOLITIS

Now available to the medical profession as a prescription item, ROMSA-PULVIS has been investigated and evaluated for more than two and one-half years by a Research Fellowship. Its characteristics, efficacy and non-toxicity are now fully established.



The chief constituent of ROMSA-PULVIS is a Bassorin gum of vegetable origin, having definite therapeutic value in a variety of intestinal maladies. Its action is adsorptive and mechanical — an excellent demulcent for the whole alimentary tract, promoting normal peristalsis.

Efficacy Established
by Comprehensive Research and Clinical Tests

Laboratory and clinical experience have demonstrated the efficacy of ROMSA-PULVIS, indicated not only by the remission of the diarrhcea but by the increased feeling of well-being soon after administration.

You will be interested in the Memorandum regarding clinical tests and uses as compiled by the medical incumbent of the Fellowship. It will be sent you without obligation.

Your pharmacist may obtain ROMSA-PULVIS through his jobber.

PHARMAX SALES CORPORATION

1 East 42nd Street, New York

When You Call On

MERCERE'S

YOU ARE GOING TO GET
WHAT YOU WANT

A small item of supply needed in a hurry . . special office or hospital equipment to meet an emergency . . an Oxygen Tent to save a patient's life . . when you call on MERCERE'S in person, by phone, wire or letter, you have called on a Surgical Supply House that knows how to "come through" with what you want when you want it.

MERCERE'S

E. L. MERCERE, Incorporated
191 MADISON AVE. — MEMPHIS

H. A. PHILLIPS
ARTIFICIAL LIMB COMPANY

Manufacturer of

ARTIFICIAL LIMBS and BRACES

Only industry of its kind in Mississippi

Prices Reasonable

Satisfaction Guaranteed

—Write for Prices or Appointment—

H. A. PHILLIPS, Proprietor
Telephone: 6586 **221 North Farrish St.**
Jackson, Mississippi

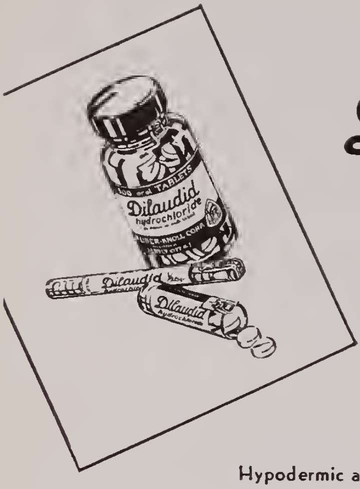
LYNNHURST SANITARIUM

(Established in 1904)

NERVOUS AND MENTAL DISEASES, ALCOHOL AND DRUG ADDICTIONS

Situated in the suburbs of Memphis in a natural park of 28 acres of beautiful woodland and ornamental shrubbery. The elegance and comforts of a well appointed home. Rooms single—or suites with private bath. The Rest Treatment—with Hydrotherapy, Physical culture and Occupational Therapy. Two resident physicians. Day and night service by trained nurses.

S. T. RUCKER, M.D., in charge — Memphis, Tenn. — C. C. COUNCE, M.D., Associate



COUNCIL ACCEPTED

Dilaudid hydrochloride

(dihydromorphinone hydrochloride)

For the relief of pain, Dilaudid hydrochloride has several advantages over morphine. It is a stronger analgesic, acts more quickly, and is less likely to cause undesirable symptoms.

Hypodermic and oral tablets,
rectal suppositories,
ampules, and powder.

DOSE: Dilaudid hydrochloride 1/20 grain will usually take the place of 1/4 grain morphine sulphate.

- Dilaudid hydrochloride comes within the scope of the Federal narcotic regulations.

Dilaudid Trade Mark reg. U. S. Pat. Off.

KNOLL BILHUBER

BILHUBER-KNOLL CORP. 154 OGDEN AVE., JERSEY CITY, N.J.

BAPTIST HOSPITAL Jackson, Miss.

SEND YOUR ORDERS TO . . .

McKESSON ROBBINS INCORPORATED
Doster-Northington Division

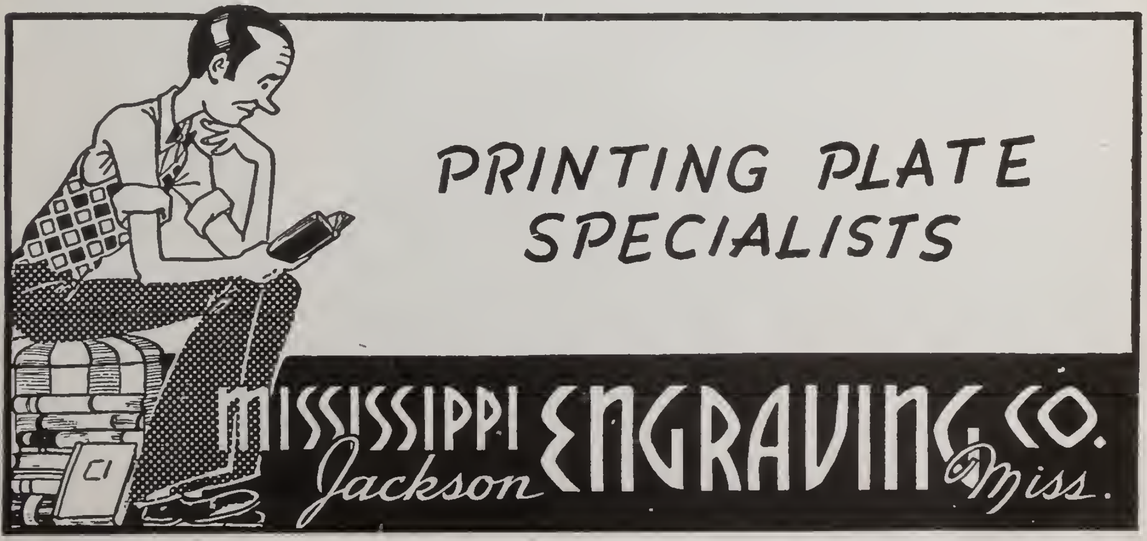
Birmingham, Alabama

DO YOU NEED . .

Prescription Blanks
Laboratory Blanks
Letter Heads
Statements
Envelopes
Blotters

SPECIAL: 10,000 Prescription Blanks........$9.50

— Send your order to —
BOONEVILLE PRINTING CO., Inc.
Booneville, Miss.


PRINTING PLATE SPECIALISTS
MISSISSIPPI ENGRAVING CO.
Jackson Miss.
CI

THE TURNER-GOTTEN SANATORIUM

MEMPHIS, TENNESSEE, Route 6, Box 288

For the Diagnosis and Treatment of Mental and Nervous Disorders

Located on the Raleigh - La Grange Road, five miles east of the city limits. Accessible to U. S. 70 (the Bristol Highway). 53½ acres of wooded land and rolling fields. Equipment new and modern, including the latest equipment for physical and hydro-therapy. Special emphasis is laid upon occupational and physical therapy under the supervision of a trained attendant. An adequate nursing personnel gives individual attention to each patient.

C. C. TURNER, B.S., M.D.
Neuro-Psychiatrist

NICHOLAS GOTTEN, M.D., F.A.C.S.
Neuro-Surgeon

Advancing Years of Happiness

Advancing years of happiness — that's what it means to live with the conveniences and comforts of modern electric home service. For with every passing year new, thrilling aids to Better Living find their way into Mississippi homes. As a basic Mississippi Industry employing more than a thousand Mississippians, this company takes pride in its service — helping housewives to happiness in over 305 cities, towns and communities of the state.

MISSISSIPPI POWER & LIGHT CO.

ADMINISTRATION BUILDING

BLUE MOUNTAIN COLLEGE

Blue Mountain, Mississippi

FULL MEMBER OF SOUTHERN ASSOCIATION OF COLLEGES

Write for catalogue and new booklet of campus views.

LAWRENCE T. LOWREY, PRESIDENT

DR.W.H.HALL

Main Building

FENWICK SANITARIUM

COVINGTON, LOUISIANA

Successfully Operated for Over Forty-Four Years

FOR THE TREATMENT OF

NERVOUS AND MILD MENTAL DISEASES

DRUG AND LIQUOR ADDICTIONS

An Institution maintained along the highest principles of proven scientific medicine. Registered by the A. M. A., member American Hospital Association, National Association of Private Psychiatric Hospitals and of the Louisiana State Hospital Association—medical staff specially trained—clinical laboratory complete and under the supervision of two of the best pathologists in New Orleans. Entire plant new, modern, and constructed of pressed brick, steel and concrete—attractive grounds—homelike environments—located in the healthy and beautiful town of Covington, Louisiana—a little over one hour from New Orleans by auto, bus or railway. Write: Doctor F. F. Young, Physician in Chief.

The New York Academy of Medicine

DUE IN TWO WEEKS UNLESS RENEWED.
NOT RENEWABLE AFTER 6 WEEKS.

DATE BORROWED	BORROWER